Arg 65	Ala	Ala	Gly	Pro	Ala 70	Ala	Ala	Ala	Val	Pro 75	Gly	Ala	Arg	Val	Val 80
Cys	Gly	Gly	Ser	Arg 85	Pro	Arg	Gln	Gln	Val 90	Asp	Ser	Ser	Lys	Glu 95	Ser
Ala	Glu	Ala	Ala 100	Cys	Asp	Ile	Leu	Ser 105	Gln	Leu	Val	Asn	Cys 110	Ser	Leu
Lys	Thr	Leu 115	Gly	Leu	Ile	Ser	Thr 120	Ala	Arg	Pro	Ser	Phe 125	Met	Asp	Leu
Pro	Lys 130	Ser	His	Phe	Ile	Ser 135	Ala	Leu	Thr	Val	Val 140	Phe	Val	Asn	Ser
Lys 145	Ser	Leu	Ser	ser	Leu 150	Lys	Ile	Asp	Asp	Thr 155	Pro	Val	Asp	Asp	Pro 160
ser	Leu	Lys	Val	Leu 165	Val	Ala	Asn	Asn	ser 170	Asp	Thr	Leu	Lys	Leu 175	Leu
Lys	Met	Ser	Ser 180	Cys	Pro	His	Val	Ser 185	Pro	Ala	Gly	Ile	Leu 190	Cys	Val
Ala	Asp	Gln 195	Cys	His	Gly	Leu	Arg 200	Glu	Leu	Ala	Leu	Asn 205	Tyr	His	Leu
Leu	Ser 210	Asp	Glu	Leu	Leu	Leu 215	Ala	Leu	Ser	Ser	Glu 220	Lys	His	Val	Arg
Leu 225	Glu	His	Leu	Arg	11e 230	Asp	Val	Val	Ser	Glu 235	Asn	Pro	Gly	Gln	Thr 240
His	Phe	His	Thr	Ile 245	Gln	Lys	Ser	Ser	Trp 250	Asp	Ala	Phe	Ile	Arg 255	His
Ser	Pro	Lys	Val 260	Asn	Leu	Val	Met	Tyr 265	Phe	Phe	Leu	Tyr	Glu 270	Glu	Glu
Phe	Asp	Pro 275	Phe	Phe	Arg	Tyr	Glu 280	Ile	Pro	Ala	Thr	His 285	Leu	Tyr	Phe
Gly	Arg 290	Ser	val	Ser	Lys	Asp 295	Val	Leu	Gly	Arg	Val 300	Gly	Met	Thr	Сув
Pro 305	Arg	Leu	Val	Glu	Leu 310	Val	Val	Cys	Ala	Asn 315	Gly	Leu	Arg	Pro	Leu 320
Asp	Glu	Glu	Leu	Ile	Arg	Ile	Ala		Arg	Cys	Lys	Asn	Leu	Ser	Ala

Ile Gly Leu Gly Glu Cys Glu Val Ser Cys Ser Ala Phe Val Glu Phe $340 \hspace{1.5cm} 345 \hspace{1.5cm} 350 \hspace{1.5cm}$

Val Lys Met Cys Gly Gly Arg Leu Ser Gln Leu Ser Ile Met Glu Glu 355 $360 \hspace{1.5cm} 365$

Val Leu Ile Pro Asp Gln Lys Tyr Ser Leu Glu Gln Ile His Trp Glu 370 375 380

Val Ser Lys His Leu Gly Arg Val Trp Phe Pro Asp Met Met Pro Thr 385 \$390\$ \$395\$ \$400

Trp

<210> 1559

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1559

Ala Gly Ala Gly Gly Arg Val Gly Asp Arg Ala Gly Val Arg Glu Arg $1 \ 5 \ 10 \ 15$

Gln Gln Ser Gly His Arg His Ser Glu Gln Fro Arg Arg Leu Cys \$20\$

Val Leu Cys Pro Gln Trp Leu Leu Ser Gly Gly Arg Leu Phe Ala Glu 65 70 75 80

Val Arg Arg Asp Ser Leu Gly Val Glu His Ile Thr Gly Phe Gly Cys 85 90 95

Leu Val Cys Glu His His Arg Val Cys Gly Cys Thr

<210> 1560

<211> 68

<212> PRT

<213> Homo sapiens

<400> 1560

Glu Leu Ser Pro Leu Ser Phe Arg Ser Thr Arg Gly Phe His Thr Tyr

1 5 10 15

Phe Ile Glu His Pro Phe Ile Phe Ile Ser Val Tyr Arg Thr Lys Lys 20 25 30

As Ser Ser Val Lys As Leu Cys Cys Gly Leu Ser Ile Phe Ala Ala 35 40 45

Phe Gly Leu Arg Trp Arg Ile Lys Ala Ser Leu Pro Leu Ser Ser Val 50 60

Phe Arg Lys Leu

65

<210> 1561

<211> 80

<212> PRT

<213> Homo sapiens

<400> 1561

Leu Met Met Thr Ile Tyr Ala Leu Ser Asn Glu Phe Ala Phe Lys Ile 1 5 10 15

As Glu Glu Gln Leu Ser Phe Phe Pro Leu Leu Ser Val Gln Leu Trp \$20\$

His Ala Gln Arg Phe Leu Leu Asp Ser Ser Trp Ser Gly Val Ile Pro \$35\$

Arg Gln Ile His Asp Leu Lys Asp Thr Gln Tyr Leu Leu Asn Ser Ser 65 70 75 80

<210> 1562

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (193) <223> Xaa equals any of the naturally occurring L-amino acids Arg Gly Leu Xaa Ser Arg Gly Ala Gly Gln Val Pro Gly Cys Leu Gly 10 Trp His Arg Ser Val Val Pro Gly Gly Ala Val Ala Ala Leu Pro Pro 25 Ser Arg Arg Gln Arg Val Arg Gly Pro Val Arg Pro Glu Pro Gly Ala 35 40 Thr Pro Arg Ala Val Leu Gly Glu Thr Arg Val Pro Val Leu Arg Leu 55 Leu Leu Gly Ser Ala Leu Val Gly Arg Leu Leu Asp Ser Leu Lys Arg Asp Tyr Ala Gly Lys Pro Gln Pro Pro Ile Lys Ser Glu Arg Arg Asn 90 Pro Pro Ser Tyr Ala Met Ala Gly Lys Lys Val Leu Ile Val Tyr Ala 100 His Gln Glu Pro Lys Ser Phe Asn Gly Ser Leu Lys Asn Val Ala Val 120 Asp Glu Leu Ser Arg Gln Gly Cys Thr Val Thr Val Ser Asp Leu Tyr 135 Ala Met Asn Phe Glu Pro Arg Ala Thr Asp Lys Asp Ile Thr Gly Thr 145 150 Leu Ser Asn Pro Glu Val Phe Asn Tyr Gly Val Glu Thr His Glu Ala 165 170 Tyr Lys Gln Arg Ser Leu Ala Ser Asp Ile Thr Asp Glu Gln Lys Lys 185 Xaa Ser Gly Arg Leu Thr

<211> 488 <212> PRT <213> Homo sapiens <400> 1563 Gly Arg Glu Ala Ser Lys Met Ala Gln Thr Gln Gly Thr Arg Arg Lys Val Cys Tyr Tyr Tyr Asp Gly Asp Val Gly Asn Tyr Tyr Tyr Gly Gln Gly His Pro Met Lys Pro His Arg Ile Arg Met Thr His Asn Leu Leu Leu Asn Tyr Gly Leu Tyr Arg Lys Met Glu Ile Tyr Arg Pro His Lys Ala Asn Ala Glu Glu Met Thr Lys Tyr His Ser Asp Asp Tyr Ile Lys Phe Leu Arg Ser Ile Arg Pro Asp Asn Met Ser Glu Tyr Ser Lys Gln 85 90 Met Gln Arg Phe Asn Val Gly Glu Asp Cys Pro Val Phe Asp Gly Leu Phe Glu Phe Cys Gln Leu Ser Thr Gly Gly Ser Val Ala Ser Ala Val 120 Lys Leu Asn Lys Gln Gln Thr Asp Ile Ala Val Asn Trp Ala Gly Gly 130 135 Leu His His Ala Lys Lys Ser Glu Ala Ser Gly Phe Cys Tyr Val Asn 145 150 155 Asp Ile Val Leu Ala Ile Leu Glu Leu Leu Lys Tyr His Gln Arg Val Leu Tyr Ile Asp Ile Asp Ile His His Gly Asp Gly Val Glu Glu Ala 180 185 190 Phe Tyr Thr Thr Asp Arg Val Met Thr Val Ser Phe His Lys Tyr Gly 195 Glu Tyr Phe Pro Gly Thr Gly Asp Leu Arg Asp Ile Gly Ala Gly Lys 215

Gly Lys Tyr Tyr Ala Val Asn Tyr Pro Leu Arg Asp Gly Ile Asp Asp

Glu Ser Tyr Glu Ala Ile Phe Lys Pro Val Met Ser Lys Val Met Glu

235

230

245 250 255 Met Phe Gln Pro Ser Ala Val Val Leu Gln Cys Gly Ser Asp Ser Leu 260 265 Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu Thr Ile Lys Gly His Ala 280 Lys Cys Val Glu Phe Val Lys Ser Phe Asn Leu Pro Met Leu Met Leu 295 Gly Gly Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp Thr Tyr 305 310 Glu Thr Ala Val Ala Leu Asp Thr Glu Ile Pro Asn Glu Leu Pro Tvr 325 330 Asn Asp Tyr Phe Glu Tyr Phe Gly Pro Asp Phe Lys Leu His Ile Ser 345 Pro Ser Asn Met Thr Asn Gln Asn Thr Asn Glu Tyr Leu Glu Lys Ile 355 360 Lys Gln Arg Leu Phe Glu Asn Leu Arg Met Leu Pro His Ala Pro Gly 375 Val Gln Met Gln Ala Ile Pro Glu Asp Ala Ile Pro Glu Glu Ser Gly 390 395 Asp Glu Asp Glu Asp Asp Pro Asp Lys Arg Ile Ser Ile Cys Ser Ser 405 410 Asp Lys Arg Ile Ala Cys Glu Glu Glu Phe Ser Asp Ser Glu Glu Glu Gly Glu Gly Gly Arg Lys Asn Ser Ser Asn Phe Lys Lys Ala Lys Arg 440

Val Lys Thr Glu Asp Glu Lys Glu Lys Asp Pro Glu Glu Lys Lys Glu

Val Thr Glu Glu Lys Thr Lys Glu Glu Lys Pro Glu Ala Lys Gly

460

475

455

470

Val Lys Glu Glu Val Lys Leu Ala 485

<210> 1564

450

465

<211> 197

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (155)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (178)
<223> Kaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (179)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (187)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (189)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1564
Ala Arg Ser Ser Leu Trp Arg Arg Gln Pro Gly Trp Gln Leu Thr Gly
                  5
                                     10
Gln Pro Gly Ser Ile Leu Leu Arg Val Phe Ser Lys Ser Arg Ala Gly
Leu Glu Ala Arg Lys Leu Lys Ala Tyr Arg Thr Met Glu Tyr Met Ala
                            40
Glu Ser Thr Asp Arg Ser Pro Gly His Ile Leu Cys Cys Glu Cys Gly
     50
                         55
                                             60
Val Pro Ile Ser Pro Asn Pro Ala Asn Ile Cys Val Ala Cys Leu Arg
65
                     70
Ser Lys Val Asp Ile Ser Gln Gly Ile Pro Lys Gln Val Ser Ile Ser
                                     90
Phe Cys Lys Gln Cys Gln Arg Tyr Phe Gln Pro Pro Gly Thr Trp Ile
            100
                                105
                                                    110
Gln Cys Ala Leu Glu Ser Arg Glu Leu Leu Ala Leu Cys Leu Lys Lys
```

115 120 125 Ile Lys Ala Pro Leu Ser Lys Val Arg Leu Val Asp Ala Gly Phe Val Trp Thr Glu Pro His Ser Lys Arg Leu Lys Xaa Lys Leu Thr Ile Gln 150 155 Lys Glu Val Met Asn Gly Ala Ile Leu Gln Gln Val Phe Val Val Asp Tyr Xaa Xaa Pro Lys Trp Gly Glu Met Ala Xaa Arg Xaa Leu Arg Ile 180 185 Leu Glu Arg Leu Asp 195 <210> 1565 <211> 197 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (179) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (189) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1565 Met Gln Phe Ala Trp Gln Ser Tyr Lys Arg Tyr Ala Met Gly Lys Asn 5 10 Glu Leu Arg Pro Leu Thr Lys Asp Gly Tyr Glu Gly Asn Met Phe Gly 20 25

Met Glu Leu Lys Glu Glu Phe Gln Glu Ala Lys Ala Trp Val Gly Glu 50 $\,$ 55 $\,$ 60 $\,$

Gly Leu Ser Gly Ala Thr Val Ile Asp Ser Leu Asp Thr Leu Tyr Leu

Ser Phe His Leu Asn Val Ser Gly Glu Ala Ser Leu Phe Glu Val Asn 65 70 75 80

Ile Arg Tyr Ile Gly Gly Leu Leu Ser Ala Phe Tyr Leu Thr Gly Glu $85 \hspace{1cm} 90 \hspace{1cm} 95$

Glu Val Phe Arg Ile Lys Ala Ile Arg Leu Gly Glu Lys Leu Leu Pro 100 105 110

Ala Phe Asn Thr Pro Thr Gly Ile Pro Lys Gly Val Val Ser Phe Lys $115 \ 120 \ 125$

Ser Gly Asn Trp Gly Trp Ala Thr Ala Gly Ser Ser Ser Ile Leu Ala 130 135 140

Glu Phe Gly Ser Leu His Leu Glu Phe Leu His Leu Thr Glu Leu Ser 145 150 155 160

Gly Asn Gln Val Phe Ala Glu Lys Val Arg Asn Ile Arg Lys Val Leu \$165\$ \$170\$ \$175

Arg Lys Xaa Glu Lys Pro Phe Gly Leu Tyr Ser Asn Xaa Xaa Met Val

Leu Gln Thr Asp Pro 195

<210> 1566

<211> 240 <212> PRT

<213> Homo sapiens

vers nome saprem

400> 1566

Ala Asp Pro Glu Gly Gln Ala Gly Arg Ala Gly Arg Ala Leu Arg Arg 1 5 10 15

His Gly His Leu His Glu Gly Ser Asp Arg Ala Gly Arg Arg Ala Val \$20\$

Gln Arg Gly Ala Gln Pro Ala Leu Arg Gly Leu Gln Glu Arg Gly Arg \$35\$ \$40\$ \$45\$

Gly Pro Gln Ser Ala Trp Arg Val Ile Ser Ser Ile Glu Gln Lys Thr $50 \ \ 55 \ \ 60$

Asp Thr Ser Asp Lys Lys Leu Gln Leu Ile Lys Asp Tyr Arg Glu Lys 65 70 75 80

Val Glu Ser Glu Leu Arg Ser Ile Cys Thr Thr Val Leu Glu Leu Leu 85 90 95

Asp Lys Tyr Leu Ile Ala Asn Ala Thr Asn Pro Glu Ser Lys Val Phe \$100\$

Tyr Leu Lys Met Lys Gly Asp Tyr Phe Arg Tyr Leu Ala Glu Val Ala 115 120 125

Cys Gly Asp Asp Arg Lys Gln Thr Ile Asp Asn Ser Gln Gly Ala Tyr 130 135 140

Gln Glu Ala Phe Asp Ile Ser Lys Lys Glu Met Gln Pro Thr His Pro 145 150 155 160

Ile Arg Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile 165 $$170\$

Leu Asn Asn Pro Glu Leu Ala Cys Thr Leu Ala Lys Thr Ala Phe Asp 180 185 190

Glu Ala Ile Ala Glu Leu Asp Thr Leu Asn Glu Asp Ser Tyr Lys Asp $195 \hspace{1.5cm} 200 \hspace{1.5cm} 205$

Ser Thr Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr $210 \\ \hspace*{1.5cm} 215 \\ \hspace*{1.5cm} 220 \\ \hspace*{1.5cm}$

Ser Asp Ser Ala Gly Glu Glu Cys Asp Ala Ala Glu Gly Ala Glu Asn 225 $230 \hspace{1.5cm} 230 \hspace{1.5cm} 235$

<210> 1567

<211> 220

<212> PRT <213> Homo sapiens

<220> <221> SITE

2212 511

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1567

Lys Ala Arg Arg Arg Gly Thr Met Ala Ala Ala Ala Asp Glu Arg Ser

Pro Glu Asp Gly Glu Asp Glu Glu Glu Glu Glu Gln Leu Val Leu Val 20 25 30

Glu Leu Ser Gly Ile Ile Asp Ser Xaa Phe Leu Ser Lys Cys Glu Asn $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Lys Cys Lys Val Leu Gly Ile Asp Thr Glu Arg Pro Ile Leu Gln Val

Asp Ser Cys Val Phe Ala Gly Glu Tyr Glu Asp Thr Leu Gly Thr Cys 65 70 75 80

Val Ile Phe Glu Glu Asn Val Glu His Ala Asp Thr Glu Gly Asn Asn 85 90 95

Lys Thr Val Leu Lys Tyr Lys Cys His Thr Met Lys Lys Leu Ser Met $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Thr Arg Thr Leu Leu Thr Glu Lys Lys Glu Gly Glu Glu Asn Ile Gly 115 \$120\$

Gly Val Glu Trp Leu Gln Ile Lys Asp Asn Asp Phe Ser Tyr Arg Pro 130 \$135\$

Asn Met Ile Cys Asn Phe Leu His Glu Asn Glu Asp Glu Glu Val Val 145 150 155 160

Ala Ser Ala Pro Asp Lys Ser Leu Glu Leu Glu Glu Glu Glu Glu Glu Glu Glu 116 Gln 175 $$\rm 175$

Met Asn Asp Ser Ser Asn Leu Ser Cys Glu Gln Glu Lys Pro Met His 180 185 190

Leu Glu Ile Glu Asp Ser Gly Pro Leu Ile Asp Ile Pro Ser Glu Thr 195 \$200\$

Glu Gly Ser Val Phe Met Glu Thr Gln Met Leu Pro 210 215 220

<210> 1568

<211> 180

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1568

Ala Trp Gln Glu Phe Gly Gln Xaa Pro Gly Ala Xaa Trp Gln Arg Arg

Cys Ala Cys Val Val Glu Cys Ser Gly Arg Arg Pro Ala Gly Ala Met \$20\$

Val Phe Leu Thr Ala Gln Leu Trp Leu Arg Asn Arg Val Thr Asp Arg 35 40 45

Tyr Phe Arg Ile Glu Glu Val Leu Lys His Ala Arg His Phe Arg Gly $50 \hspace{1cm} 55 \hspace{1cm} 60$

Arg Lys Asn Arg Cys Tyr Arg Leu Ala Val Arg Thr Val Ile Arg Ala $65 \hspace{1.5cm} 70 \hspace{1.5cm} 75 \hspace{1.5cm} 80$

Phe Val Lys Cys Thr Lys Ala Arg Tyr Leu Lys Lys Lys Asn Met Arg 90 95

Lys Tyr Pro Ala Leu Ile Gly Asn Leu Val Lys Cys Gln Val Glu Leu 115 120 125

Asn Arg Lys Val Leu Ala Asp Leu Ala Ile Tyr Glu Pro Lys Thr Phe 130 135 140

Lys Ser Leu Ala Ala Leu Ala Ser Arg Arg Arg His Glu Gly Phe Ala 145 \$150\$

Ala Ala Leu Gly Asp Gly Lys Glu Pro Glu Gly Ile Phe Ser Arg Val $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Val Gln Tyr His 180

<210> 1569

<211> 160

<212> PRT

<213> Homo sapiens

<400> 1569

Ala Gly Pro Tyr Ala Asp Ser Ile Trp Ala Pro Ala Arg Ser Ala Ala 1 10 15 Gly Gln Arg Gly Val Ala Met Ala Glu Leu Gln Gln Leu Arg Val Gln 20 \$25\$

Glu Ala Val Glu Ser Met Val Lys Ser Leu Glu Arg Glu Asn Ile Arg 35 40 45

Lys Met Gln Gly Leu Met Phe Arg Cys Ser Ala Ser Cys Cys Glu Asp 50 55 60

Ser Gln Ala Ser Met Lys Gln Val His Gln Cys Ile Glu Arg Cys His 65 70 75 80

Val Pro Leu Ala Gln Ala Gln Ala Leu Val Thr Ser Glu Leu Glu Lys \$85\$ 90 95

Phe Gln Asp Arg Leu Ala Arg Cys Thr Met His Cys Asn Asp Lys Ala $100 \\ 105 \\ 110$

Lys Asp Ser Ile Asp Ala Gly Ser Lys Glu Leu Gln Val Lys Gln Gln
115 120 125

Leu Asp Ser Cys Val Thr Lys Cys Val Asp Asp His Met His Leu Ile 130 135 140

Pro Thr Met Thr Lys Lys Met Lys Glu Ala Leu Leu Ser Ile Gly Lys 145 150 155 160

<210> 1570

<211> 77

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

.....

Gly Leu Ser Asp His Leu Val Phe Pro Phe Ser Ala Xaa His Val Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Gly Val Ala Pro Tyr His Thr Ser Arg Ala Pro Glu Pro Tyr Phe 20 25 30

Leu Ile Ser Ser Gly Leu Asp Phe Pro Val Leu His Gln Gln Leu Gln 35 40 45

Tyr Pro Lys Leu Ser Ser Pro Ala Asp Pro Pro Ser Asn Gly Val Glu 50 55 60

Thr Gly Gly Gln Cys Leu Val Cys Phe Leu Arg Asn Leu 65 70 75

<210> 1571

<211> 218

<212> PRT

<213> Homo sapiens

<400> 1571

Glu Gly Pro Ile Pro Trp Gly Arg Arg Arg Arg Glu Pro Glu Pro Leu

1 5 10 15

Leu Pro Met Ala Lys Lys Thr Tyr Asp Leu Leu Phe Lys Leu Leu Leu 20 25 30

Ile Gly Asp Ser Gly Val Gly Lys Thr Cys Val Leu Phe Arg Phe Ser $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asp Asp Ala Phe Asn Thr Thr Phe Ile Ser Thr Ile Gly Ile Asp Phe 50 60

Lys Ile Lys Thr Val Glu Leu Gln Gly Lys Lys Ile Lys Leu Gln Ile 65 70 75 80

Trp Asp Thr Ala Gly Gln Glu Arg Phe His Thr Ile Thr Thr Ser Tyr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Tyr Arg Gly Ala Met Gly Ile Met Leu Val Tyr Asp Ile Thr Asn Gly
100 105 110

Lys Ser Phe Glu Asn Ile Ser Lys Trp Leu Arg Asn Ile Asp Glu His 115 120 125

Ala Asn Glu Asp Val Glu Arg Met Leu Leu Gly Asn Lys Cys Asp Met 130 \$135\$

Asp Asp Lys Arg Val Val Pro Lys Gly Lys Gly Glu Gln Ile Ala Arg 145 150150155

Glu His Gly Ile Arg Phe Phe Glu Thr Ser Ala Lys Ala Asn Ile Asn 165 170 175

Ile Glu Lys Ala Phe Leu Thr Leu Ala Glu Asp Ile Leu Arg Lys Thr

Pro Val Lys Glu Pro Asn Ser Glu Asn Val Asp Ile Ser Ser Gly Gly 195 200 205

Gly Val Thr Gly Trp Lys Ser Lys Cys Cys 210 215

<210> 1572

<210> 157:

<212> PRT

<213> Homo sapiens

<400> 1572

Arg Asn Leu Leu Ala Trp Pro Arg Arg Leu Ser Gly Ile Ala Arg Ala 1 5 10 15

Leu Arg Phe Ile Ala Thr Pro Arg Leu Ser Ala Met Pro His Ile Asp $20 \hspace{1cm} 25 \hspace{1cm} 30$

Asn Asp Val Lys Leu Asp Phe Lys Asp Val Leu Leu Arg Pro Lys Arg 35 40 45

Ser Thr Leu Lys Ser Arg Ser Glu Val Asp Leu Thr Arg Ser Phe Ser 50 55 60

Phe Arg Asn Ser Lys Gln Thr Tyr Ser Gly Val Pro Ile Ile Ala Ala 65 70 75 80

Asn Met Asp Thr Val Gly Thr Phe Glu Met Ala Lys Val Leu Cys Lys \$85\$ 90 95

Phe Ser Leu Phe Thr Ala Val His Lys His Tyr Ser Leu Val Gln Trp \$100\$ \$105\$ \$110\$

Gln Glu Phe Ala Gly Gln Asn Pro Asp Cys Leu Glu His Leu Ala Ala 115 \$120\$

Ser Ser Gly Thr Gly Ser Ser Asp Phe Glu Gln Leu Glu Gln Ile Leu 130 135 140

Glu Ala Ile Pro Gln Val Lys Tyr Ile Cys Leu Asp Val Ala Asn Gly 145 150 150 155

Tyr Ser Glu His Phe Val Glu Phe Val Lys Asp Val Arg Lys Arg Phe 165 170 175

Pro Gln His Thr Ile Met Ala Gly Asn Val Val Thr Gly Glu Met Val 180 185 190

Glu Glu Leu Ile Leu Ser Gly Ala Asp Ile Ile Lys Val Gly Ile Gly

195 200 205 Pro Gly Ser Val Cys Thr Thr Arg Lys Lys Thr Gly Val Gly Tyr Pro 215 Gln Leu Ser Ala Val Met Glu Cys Ala Asp Ala Ala His Gly Leu Lys 230 235 Gly Thr Ser Phe Gln Met Glu Val Ala Ala Val Leu Gly Met Trp Pro 250 Arg Leu Leu Gly Gln Glu Leu Thr Ser 260 <210> 1573 <211> 128 <212> PRT <213> Homo sapiens

<400> 1573

Glu Thr Thr Thr Thr Thr Leu Trp Arg Arg Asn Ala Asn Gly Asp Pro $1 \ 5 \ 10 \ 15$

Val Cys Asn Ala Cys Gly Leu Tyr Tyr Lys Leu His Asn Val Asn Arg 20 25 30

Pro Leu Thr Met Lys Lys Glu Gly Ile Gln Thr Arg Asn Arg Lys Met $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Asn Lys Ser Lys Lys Ser Lys Lys Gly Ala Glu Cys Phe Glu Glu 50 $$

Leu Ser Lys Cys Met Gln Glu Lys Ser Ser Pro Phe Ser Ala Ala Ala 65 70 75 80

Leu Ala Gly His Met Ala Pro Val Gly His Leu Pro Pro Phe Ser His $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ser Gly His Ile Leu Pro Thr Pro Thr Pro Ile His Pro Ser Ser Ser 100 $$105\$

Leu Ser Phe Gly His Pro His Pro Ser Ser Met Val Thr Ala Met Gly . 115 120 125

<210> 1574 <211> 334 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids Gly Ala Arg Xaa Asp Arg Ala Leu Leu Arg Pro Pro Leu Leu Arg Glu Leu Thr Pro Arg Ser Pro Arg Pro Pro Leu Ala Pro Ala Ala Arg Pro Ser Trp Pro Cys Leu Cys Leu Asp Gly Gly Val Ser Gly Val Phe Val Trp Asp Glu Glu Arg Ile Gln Glu Glu Glu Leu Gln Arg Ser Ile Asn Glu Met Lys Arg Leu Glu Glu Met Ser Asn Met Phe Gln Ser Ser Gly Val Gln His His Pro Pro Glu Pro Lys Ala Gln Thr Glu Gly Asn Glu 85 90 Asp Ser Glu Gly Lys Glu Gln Arg Trp Glu Met Val Met Asp Lys Lys 100 His Phe Lys Leu Trp Arq Arq Pro Ile Thr Gly Thr His Leu Tyr Gln 115 120 Tyr Arg Val Phe Gly Thr Tyr Thr Asp Val Thr Pro Arg Gln Phe Phe 135 Asn Val Gln Leu Asp Thr Glu Tyr Arg Lys Lys Trp Asp Ala Leu Val 145 150 155 160 Ile Lys Leu Glu Val Ile Glu Arg Asp Val Val Ser Gly Ser Glu Val 165 Leu His Trp Val Thr His Phe Pro Tyr Pro Met Tyr Ser Arg Asp Tyr 185 Val Tyr Val Arg Arg Tyr Ser Val Asp Gln Glu Asn Asn Met Met Val 195 200 205

Leu Val Ser Arc Ala Val Glu His Pro Ser Val Pro Glu Ser Pro Glu

210 215 220 Phe Val Arg Val Arg Ser Tyr Glu Ser Gln Met Val Ile Arg Pro His 225 230 235 Lys Ser Phe Asp Glu Asn Gly Phe Asp Tyr Leu Leu Thr Tyr Ser Asp Asn Pro Gln Thr Val Phe Pro Arg Tyr Cys Val Ser Trp Met Val Ser 265 Ser Gly Met Pro Asp Phe Leu Glu Lys Leu His Met Ala Thr Leu Lys 275 280 Ala Lys Asn Met Glu Ile Lys Val Lys Asp Tyr Ile Ser Ala Lys Pro Leu Glu Met Ser Ser Glu Ala Lys Ala Thr Ser Gln Ser Ser Glu Arg 305 310 315 Lys Asn Glu Gly Ser Cys Gly Pro Ala Arg Ile Glu Tyr Ala 325 330 <210> 1575 <211> 335

<212> PRT <213> Homo sapiens <220> <221> SITE <222> (125) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (218) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (219) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (268)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1575

Pro Ser Ala Pro Arg Ala Leu Thr Leu Gln Arg Arg Lys Ile Gly Arg Arg Gly Gln Ala Leu Met Leu Val Ser Gly Arg Arg Arg Leu Leu Thr 25 Val Leu Leu Gln Ala Gln Lys Trp Pro Phe Gln Pro Ser Arg Asp Met 40 Arg Leu Val Gln Phe Arg Ala Pro His Leu Val Gly Pro His Leu Gly Leu Glu Thr Gly Asn Gly Gly Gly Val Ile Asn Leu Asn Ala Phe Asp Pro Thr Leu Pro Lvs Thr Met Thr Gln Phe Leu Glu Gln Glv Glu Ala 85 90 Thr Leu Ser Val Ala Arg Arg Ala Leu Ala Ala Gln Leu Pro Val Leu Pro Arg Ser Glu Val Thr Phe Leu Ala Pro Val Thr Xaa Pro Asp Lys 120 Val Val Cys Val Gly Met Asn Tyr Val Asp His Cys Lys Glu Gln Asn 130 135 Val Pro Val Pro Lvs Glu Pro Ile Ile Phe Ser Lvs Phe Ala Ser Ser 145 150 155 Ile Val Gly Pro Tyr Asp Glu Val Val Leu Pro Pro Gln Ser Gln Glu Val Asp Trp Glu Val Glu Leu Ala Val Val Ile Gly Lys Lys Gly Lys 185 His Ile Lys Ala Thr Asp Ala Met Ala His Val Ala Gly Phe Thr Val 195 200 Ala His Asp Val Ser Ala Arg Asp Trp Xaa Xaa Arg Arg Asn Gly Lys 215 Gln Trp Leu Leu Gly Lys Thr Phe Asp Thr Phe Cys Pro Leu Gly Pro 230 235 Ala Leu Val Thr Lys Asp Ser Val Ala Asp Pro His Asn Leu Lys Ile 245

Cys Cys Arg Val Asn Gly Glu Val Val Gln Ser Xaa Asn Thr Asn Gln

265

270

Met Val Phe Lys Thr Glu Asp Leu Ile Ala Trp Val Ser Gln Phe Val 275 280 285

Thr Phe Tyr Pro Gly Asp Val Ile Leu Thr Gly Thr Pro Pro Gly Val 290 295 300

Gly Val Phe Arg Lys Pro Pro Val Phe Leu Lys Lys Gly Asp Glu Val 305 310 315 320

Gln Cys Glu Ile Glu Glu Leu Gly Val Ile Ile Asn Lys Val Val 325 330 335

<210> 1576

<211> 113

<212> PRT <213> Homo sapiens

<400> 1576

Ile Pro Glu Asp Pro His Ile Asp Glu Ser Lys Ala Lys His Gln Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ile Ile Met Ser Thr Ser Leu Arg Val Ser Pro Ser Ile His Gly Tyr $$20$ \end{tabular}$

His Phe Asp Thr Ala Ser Arg Lys Lys Ala Val Gly Asn Ile Phe Glu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asn Thr Asp Gln Glu Ser Leu Glu Arg Leu Phe Arg Asn Ser Gly Asp 50 55 60

Lys Lys Ala Glu Glu Arg Ala Lys Ile Ile Phe Ala Ile Asp Gln Asp 65 70 75 80

Val Glu Glu Lys Thr Arg Ala Leu Met Ala Leu Lys Lys Arg Thr Lys 85 90 95

Asp Lys Leu Phe Gln Phe Leu Lys Leu Arg Lys Tyr Ser Ile Lys Val

His

<210> 1577

<211> 212

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1577 Gly Ala Ser Trp Xaa Ala Leu Thr Ala Ala Ser Ala Pro Gly Pro Trp 10 15 Pro Leu Ser Gly Met Ala Cys Gly Ala Thr Leu Lys Arg Pro Met Glu Phe Glu Ala Ala Leu Leu Ser Pro Gly Ser Pro Lys Arg Arg Cys 40 Ala Pro Leu Pro Gly Pro Thr Pro Gly Leu Arg Pro Pro Asp Ala Glu 50 55 60 Pro Pro Pro Pro Phe Gln Thr Gln Thr Pro Pro Gln Ser Leu Gln Gln Pro Ala Pro Pro Gly Ser Glu Arg Arg Leu Pro Thr Pro Glu Gln Ile 90 Phe Gln Asn Ile Lys Gln Glu Tyr Ser Arg Tyr Gln Arg Trp Arg His 100 Leu Glu Val Val Leu Asn Gln Ser Glu Ala Cys Ala Ser Glu Ser Gln 115 120 Pro His Ser Ser Ala Leu Thr Ala Pro Ser Ser Pro Gly Ser Ser Trp 135 Met Lys Lys Asp Gln Pro Thr Phe Thr Leu Arg Gln Val Gly Ile Ile 150 155

Cys Glu Arg Leu Leu Lys Asp Tyr Glu Asp Lys Ile Arg Glu Glu Tyr 165 170 175

Glu Glu Ile Leu Asm Thr Lys Leu Ala Glu Gln Tyr Glu Ser Phe Val

180 185 190

Lys Phe Thr His Asp Gln Ile Met Arg Arg Tyr Gly Thr Arg Pro Thr 195 200205

Ser Tyr Val Ser 210

<211> 393 <212> PRT <213> Homo sapiens															
<pre><220> <221> SITE <222> (209) <223> Xaa equals any of the naturally occurring L-amino acids</pre>														is	
	0> 1 Arg		Arg	Glu 5	Ala	Gln	Glu	Lys	Arg 10	Tyr	Tyr	Tyr	Asp	Leu 15	Asp
Asp	Ser	Tyr	Asp 20	Glu	Ser	Asp	Glu	Glu 25	Glu	Val	Arg	Ala	His 30	Leu	Arg
Cys	Val	Ala 35	Glu	Gln	Pro	Pro	Leu 40	Lys	Leu	Asp	Thr	Ser 45	Ser	Glu	Lys
Leu	Glu 50	Phe	Leu	Gln	Leu	Phe 55	Gly	Leu	Thr	Thr	Gln 60	Gln	Gln	Lys	Glu
Glu 65	Leu	Va1	Ala	Gln	Lys 70	Arg	Arg	Lys	Arg	Arg 75	Arg	Met	Leu	Arg	Glu 80
Arg	Ser	Pro	Ser	Pro 85	Pro	Thr	Ile	Gln	Ser 90	Lys	Arg	Gln	Thr	Pro 95	Ser
Pro	Arg	Leu	Ala 100	Leu	Ser	Thr	Arg	Туг 105	Ser	Pro	Asp	Glu	Met 110	Asn	Asn
Ser	Pro	Asn 115	Phe	Glu	Glu	Lys	Lys 120	Lys	Phe	Leu	Thr	Ile 125	Phe	Asn	Leu
Thr	His 130	Ile	Ser	Ala	Glu	Lys 135	Arg	Lys	Asp	Lys	Glu 140	Arg	Leu	Val	Glu
Met 145	Leu	Arg	Ala	Met	Lys 150	Gln	Lys	Ala	Leu	Ser 155	Ala	Ala	Val	Ala	Asp 160
Ser	Leu	Thr	Asn	Ser 165	Pro	Arg	Asp	Ser	Pro 170	Ala	Val	Ser	Leu	Ser 175	Glu
Pro	Ala	Thr	Gln 180	Gln	Ala	Ser	Leu	Asp 185	Val	Glu	Lys	Pro	Val 190	Gly	Val
Ala	Ala	Ser 195	Leu	Ser	Asp	Ile	Pro 200	Lys	Ala	Ala	Asp	Leu 205	Gly	Ser	Trp
Xaa	Gln 210	Val	Arg	Pro	Gln	Glu 215	Leu	Ser	Arg	Val	Gln 220	Glu	Leu	Ala	Pro

Ala Ser Gly Glu Lys Gly Gln Ala Glu Arg Gly Pro Trp Arg Gln Lys 225 230 235 Glu Ser Glu His Ala Ser Leu Tyr Pro Gly Arg Cys Thr Gln Gly His Ser Cys Ala Ala Val Pro Gln His Gln Trp Glu Glu Gln Ala Val Gly 265 Ala Leu Cys Gly Arg Arg Val Cys Thr Ser Val Pro Arg Val Gln Cys 280 Cys Ser Pro Pro Arg Arg Pro Cys Arg Ser Ile Lys Gly Ala Trp Leu 290 295 Cys Cys Leu Gln Ser Arg Thr Thr Arg Leu Thr Arg Pro Ser Thr Thr 305 310 Thr Phe Leu Ser Cys Ser Pro Pro Ala Ala Pro Leu His Pro Ser Thr 325 330 Met Gly Ser Arg Ser Pro Pro Leu Gln Gly Arg Ala Pro Gln Pro Arg 340 345 Ser Trp Thr Gly Thr Arg Arg Arg Lys Arg Arg Met Met Lys Met 360 Glu Lys Met Arg Arg Lys Ser Pro Ser Ala Ser Gly Lys Gly Ser Arg Pro Phe Leu Lys Leu Thr Arg Asn Thr 385 390 <210> 1579 <211> 39 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (10)

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<400> 1579
Gln Ala Xaa Thr Thr Leu Thr Lys Gly Xaa Lys Ser Trp Ser Ser Thr
                                    10
Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn
             20
Ser Ala Arg Gly Arg Arg Asn
         35
<210> 1580
<211> 286
<212> PRT
<213> Homo sapiens
<220>
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<222> (171)
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<220>
<221> SITE
<222> (237)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1580
Pro Thr Arg Pro Pro Thr Arg Pro Pro Thr Arg Pro Val Pro Ala Ser
Glu Ser Ala Val Val Gln Thr Glu Cys Ser Leu Leu Phe Val Trp
             20
                                25
Leu Arg Phe His Ala Arg Arg Trp Leu Arg Met Ser Ser Ser His Phe
Ala Ser Arg His Arg Lys Asp Ile Ser Thr Glu Met Ile Arg Thr Lys
Ile Ala His Arg Lys Ser Leu Ser Gln Lys Glu Asn Arg His Lys Glu
65
                   70
Tyr Glu Arg Asn Arg His Phe Gly Leu Lys Asp Val Asn Ile Pro Thr
                85
                                    90
Leu Glu Gly Arg Ile Leu Val Glu Leu Asp Glu Thr Ser Gln Gly Leu
```

Val Pro Glu Lys Thr Asn Val Lys Pro Arg Ala Met Lys Thr Ile Leu

120

Gly Asp Gln Arg Lys Gln Met Leu Gln Lys Tyr Lys Glu Glu Lys Gln 130 135 140

Leu Gln Lys Leu Lys Glu Gln Arg Glu Lys Ala Lys Arg Gly Ile Phe 145 150 155 160

Lys Val Gly Arg Tyr Arg Pro Asp Met Pro Xaa Phe Leu Leu Ser Asn 165 170 175

Gln Asn Ala Val Lys Ala Glu Pro Lys Lys Ala Ile Pro Ser Ser Val 180 185 190

Arg Ile Thr Arg Ser Lys Ala Lys Asp Gln Met Glu Gln Thr Lys Ile 195 200 205

Ser Glu Lys Lys Val Ser Asp Lys Glu Lys Lys Val Xaa Gln Pro Val 225 \$230\$ 235 \$240

Met Pro Thr Ser Leu Arg Met Thr Arg Ser Ala Thr Gln Ala Ala Lys 245 250 255

Gln Val Pro Arg Thr Val Ser Ser Thr Thr Ala Arg Lys Pro Val Thr \$260\$

Arg Ala Ala Asn Glu Asn Gly Thr Arg Arg Lys Gly Ala Lys 275 280 285

<210> 1581

<211> 276

<212> PRT

<213> Homo sapiens

<400> 1581

Asp Arg Arg Gly Ile Gly Ile Met Ala Ala Ala Leu Phe Val Leu Leu 1 5 10 15

Gly Phe Ala Leu Leu Gly Thr His Gly Ala Ser Gly Ala Ala Gly Thr \$20\$ \$25\$ \$30

Val Phe Thr Thr Val Glu Asp Leu Gly Ser Lys Ile Leu Leu Thr Cys 35 40 45

Gly Gly Val Val Leu Lys Glu Asp Ala Leu Pro Gly Gln Lys Thr Glu 65 70 75 80

Phe Lys Val Asp Ser Asp Asp Gln Trp Gly Glu Tyr Ser Cys Val Phe 85 90 95

Leu Pro Glu Pro Met Gly Thr Ala Asn Ile Gln Leu His Gly Pro Pro $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Arg Val Lys Ala Val Lys Ser Ser Glu His Ile Asn Glu Gly Glu Thr

Ala Met Leu Val Cys Lys Ser Glu Ser Val Pro Pro Val Thr Asp Trp 130 135 140

Ala Trp Tyr Lys Ile Thr Asp Ser Glu Asp Lys Ala Leu Met Asn Gly 145 150 155 160

Ser Glu Ser Arg Phe Phe Val Ser Ser Ser Gln Gly Arg Ser Glu Leu 165 170 175

His Ile Glu Asn Leu Asn Met Glu Ala Asp Pro Gly Gln Tyr Arg Cys 180 185 190

Asn Gly Thr Ser Ser Lys Gly Ser Asp Gln Ala Ile Ile Thr Leu Arg

Val Arg Ser His Leu Ala Ala Leu Trp Pro Phe Leu Gly Ile Val Ala 210 215 220

Glu Val Leu Val Leu Val Thr Ile Ile Phe Ile Tyr Glu Lys Arg Arg 225 230 235 240

Lys Ser Ser Gly Gln His Gln Asn Asp Lys Gly Lys Asn Val Arg Gln \$260\$

Arg Asn Ser Ser 275

<210> 1582 <211> 476

<211> 476 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (136) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (271) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1582 Thr Ile Ser Phe Pro Gly Arg Xaa Leu Asp Lys Phe Ile Lys Phe Phe Ala Leu Lys Thr Val Gln Val Ile Val Gln Ala Arg Leu Gly Glu Lys 25 Ile Cys Thr Arg Ser Ser Ser Ser Pro Thr Gly Ser Asp Trp Phe Asn 35 40 Leu Ala Ile Lys Asp Ile Pro Glu Val Thr His Glu Ala Lys Lys Ala 55 Leu Ala Gly Gln Leu Pro Ala Val Gly Arg Ser Met Cys Val Glu Ile Ser Leu Lys Thr Ser Glu Gly Asp Ser Met Glu Leu Glu Ile Trp Cys 85 90 Leu Glu Met Asn Glu Lys Cys Asp Lys Glu Ile Lys Val Ser Tyr Thr 105 Val Tyr Asn Arg Leu Ser Leu Leu Leu Lys Ser Leu Leu Ala Ile Thr 120 Arg Val Thr Pro Ala Tyr Arg Xaa Ser Arg Lys Gln Gly His Glu Tyr 130 135 Val Ile Leu Tyr Arq Ile Tyr Phe Gly Glu Val Gln Leu Ser Gly Leu 145 150 155 Gly Glu Gly Phe Gln Thr Val Arg Val Gly Thr Val Gly Thr Pro Val Gly Thr Ile Thr Leu Ser Cys Ala Tyr Arg Ile Asn Leu Ala Phe Met 180 185 190

Ser Thr Arg Gln Phe Glu Arg Thr Pro Pro Ile Met Gly Ile Ile Ile

		195					200					205			
Asp	His 210			Asp	Arg	Pro 215	Tyr	Pro	Ser	Ser	ser 220	Pro	Met	His	Pro
Cys 225	Asn	Tyr	Arg	Thr	Ala 230	Gly	Glu	Asp	Thr	Gly 235	Val	Ile	туг	Pro	Ser 240
Val	Glu	Asp	Ser	Gln 245	Glu	Val	Cys	Thr	Thr 250	Ser	Phe	Ser	Thr	Ser 255	Pro
Pro	Ser	Gln	Leu 260	Met	Val	Pro	Gly	Lys 265	Glu	Gly	Gly	Val	Pro 270	Xaa	Ala
Pro	Asn	Gln 275	Pro	Val	His	Gly	Thr 280	Gln	Ala	Asp	Gln	Glu 285	Arg	Leu	Ala
Thr	Cys 290	Thr	Pro	Ser	Asp	Arg 295	Thr	His	Суѕ	Ala	Ala 300	Thr	Pro	Ser	Ser
Ser 305	Glu	Asp	Thr	Glu	Thr 310	Val	Ser	Asn	Ser	Ser 315	Glu	Gly	Arg	Ala	Ser 320
Pro	His	Asp	Val	Leu 325	Glu	Thr	Ile	Phe	Val 330	Arg	Lys	Val	Gly	Ala 335	Phe
Val	Asn	Lys	Pro 340	Ile	Asn	Gln	Val	Thr 345	Leu	Thr	Ser	Leu	Asp 350	Ile	Pro
Phe	Ala	Met 355	Phe	Ala	Pro	Lys	Asn 360	Leu	Glu	Leu	Glu	Asp 365	Thr	Asp	Pro
Met	Val 370	Asn	Pro	Pro	Asp	Ser 375	Pro	Glu	Thr	Glu	Ser 380	Pro	Leu	Gln	Gly
Ser 385	Leu	His	Ser	Asp	Gly 390	Ser	Ser	Gly	Gly	Ser 395	Ser	Gly	Asn	Thr	His 400
Asp	Asp	Phe	Val	Met 405	Ile	Asp	Phe	Lys	Pro 410	Ala	Phe	Ser	Lys	Asp 415	Asp
Ile	Leu	Pro	Met 420	Asp	Leu	Gly	Thr	Phe 425	Tyr	Arg	Glu	Phe	Gln 430	Asn	Pro
Pro	Gln	Leu 435	Ser	Ser	Leu	Ser	11e 440	Asp	Ile	Gly	Ala	Gln 445	Ser	Met	Ala
	Asp 450	Leu	Asp	Ser	Leu	Pro 455	Glu	Lys	Leu	Ala	Val 460	His	Glu	Lys	Asn
Val	Arg	Glu	Phe	Asp	Ala	Phe	Val	Glu	Thr	Leu	Gln				

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465
                  470
                                      475
<210> 1583
<211> 569
<212> PRT
<213> Homo sapiens
<220>
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<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<220>
<221> SITE
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<222> (554) <223> Xaa equals any of the naturally occurring L-amino acids Gly Xaa Lys Ser Trp Cys Ser Thr Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Val Leu Ala Val Val Ala Xaa Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro Glu Ser Arg 40 Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu Glu Arq Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu Ala Lys Asn 100 105 110 Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly Val Leu Asp 135 Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu Gln Phe Ile 145 150 155 Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile Glu Leu Thr 165 170 Leu Lys Glu Glu Glu Glu Tyr Ile Arg Glu Xaa Ile Glu Trp Thr 185 His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu Ile Glu Asn 200 Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys Leu Arg Pro 210 215 Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn Gln Val Cys 230 235 Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys Ser Arg Phe

Leu	Asn	Asp	Thr 260	Ser	Leu	Pro	His	Ser 265	Cys	Phe	Arg	Ile	Gln 270	His	Tyr
Ala	Gly	Lys 275	Val	Leu	Tyr	Gln	Val 280	Glu	Gly	Phe	Val	Asp 285	Lys	Asn	Asn
Asp	Leu 290	Xaa	Tyr	Arg	Asp	Leu 295	Ser	Gln	Ala	Met	Trp 300	Lys	Ala	Ser	His
Ala 305	Leu	Ile	Lys	Ser	Leu 310	Phe	Pro	Glu	Gly	Asn 315	Pro	Ala	Lys	Ile	Asn 320
Leu	Lys	Arg	Pro	Pro 325	Thr	Ala	Gly	Ser	Gln 330	Phe	Lys	Ala	Ser	Val 335	Ala
Thr	Leu	Met	Lys 340	Asn	Leu	Gln	Thr	Xaa 345	Xaa	Pro	Asn	Tyr	11e 350	Arg	Cys
Ile	Lys	Pro 355	Asn	Asp	Lys	Lys	Ala 360	Ala	His	Ile	Phe	Asn 365	Glu	Ala	Leu
Val	Cys 370	His	Gln	Ile	Arg	Tyr 375	Leu	Gly	Leu	Leu	Glu 380	Asn	Val	Arg	Val
Arg 385	Arg	Ala	Gly	Tyr	Ala 390	Phe	Arg	Gln	Ala	Туг 395	Glu	Pro	Cys	Leu	Glu 400
Arg	Tyr	Lys	Met	Leu 405	Cys	Lys	Gln	Thr	Trp 410	Pro	His	Trp	Lys	Gly 415	Pro
Ala	Arg	Ser	Gly 420	Val	Glu	Val	Leu	Phe 425	Asn	Glu	Leu	Glu	Ile 430	Pro	Val
Glu	Glu	Tyr 435	Ser	Phe	Gly	Arg	Ser 440	Lys	Ile	Phe	Ile	Arg 445	Asn	Pro	Arg
Thr	Leu 450	Phe	Lys	Leu	Glu	Asp 455	Leu	Arg	Lys	Gln	Arg 460	Leu	Glu	Asp	Leu
Ala 465	Thr	Leu	Ile	Gln	Lys 470	Ile	Tyr	Arg	Gly	Trp 475	Lys	Cys	Arg	Thr	His 480
Phe	Leu	Leu	Met	Lys 485	Lys	Ser	Gln	Ile	Val 490	Ile	Ala	Ala	Trp	Tyr 495	Arg
Arg	Tyr		Gln 500	Gln	Lys	Arg	Tyr	Gln 505	Gln	Thr	Lys	Ser	Ser 510	Ala	Leu
Val	Ile	Gln 515	ser	Tyr	Ile	Arg	Gly 520	Trp	Lys	Ala	Arg	Lys 525	Ile	Leu	Arg

Glu Leu Lys His Gln Lys Arg Cys Lys Glu Ala Val Thr Thr Ile Ala 530 535 540

Ala Tyr Trp His Gly Thr Gln Xaa Xaa Xaa Lys Asn Gln Glu Ile Leu 545 550 555 560

Gln Ser Gln Cys Trp Lys Arg Lys Ser 565

<210> 1584

<211> 267

<212> PRT

<213> Homo sapiens

<400> 1584

Arg Val Asp Pro Arg Val Arg Ile Leu Gly Ala Gly Glu Glu Ala Gly
1 5 10 15

Ser Pro Ser Leu His Val Arg Asp Leu Thr Val Glu Met Ala Ala Gln 20 25 30

Lys Ile Asn Glu Gly Leu Glu His Leu Ala Lys Ala Glu Lys Tyr Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Glu Tyr Gly Lys Ala Ala Val Ala Phe Lys Asn Ala Lys Gln Phe Glu 65 70 75 80

Gln Ala Lys Asp Ala Cys Leu Arg Glu Ala Val Ala His Glu Asn Asn 85 90 95

Arg Ala Leu Phe His Ala Ala Lys Ala Tyr Glu Gln Ala Gly Met Met 100 \$105\$

Leu Lys Glu Met Gln Lys Leu Pro Glu Ala Val Gln Leu Ile Glu Lys 115 120 125

Ala Ser Met Met Tyr Leu Glu Asn Gly Thr Pro Asp Thr Ala Ala Met 130 \$135\$

Ala Leu Glu Arg Ala Gly Lys Leu Ile Glu Asn Val Asp Pro Glu Lys 145 \$150\$

Ala Val Gln Leu Tyr Gln Gln Thr Ala Asn Val Phe Glu Asn Glu Glu 165 170 175

Arg Leu Arg Gln Ala Val Glu Leu Leu Gly Lys Ala Ser Arg Leu Leu 180 Val Arg Gly Arg Arg Phe Asp Glu Ala Ala Leu Ser Ile Gln Lys Glu 200 Lys Asn Ile Tyr Lys Glu Ile Glu Asn Tyr Pro Thr Cys Tyr Lys Lys 210 220 215 Thr Ile Ala Gln Val Leu Val His Leu His Arq Asn Asp Tyr Val Ala 230 235 Ala Glu Arg Cys Val Arg Glu Ser Tyr Ser Ile Pro Gly Phe Asn Gly 245 250 Ser Glu Asp Cys Ala Ala Leu Gly Thr Ala Ser 260 265 <210> 1585 <211> 214 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1585 Xaa Xaa Xaa Gln Thr Ser Pro Val Leu Cvs Asn Xaa Pro Arg Arg His

Arg Ala Pro Trp Pro Ser Tyr Asn Asp Glu Asp Ile Tyr Leu Phe Asn $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ser Ser His Ser Asp Gly Ala Gln Tyr Val Lys Arg Tyr Lys Gly His $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Arg Asn Ala Thr Val Lys Gly Val Asn Phe Tyr Gly Pro Lys Ser 50 60

Glu Phe Val Val Ser Gly Ser Asp Cys Gly His Ile Phe Leu Trp Glu 65 70 75 80

Lys Ser Ser Cys Gln Ile Ile Gln Phe Met Glu Gly Asp Lys Gly Gly 85 90 95

Val Val Asn Cys Leu Glu Pro His Pro His Leu Pro Val Leu Ala Thr 100 105 110

Ser Gly Leu Asp His Asp Val Lys Ile Trp Ala Pro Thr Ala Glu Ala 115 \$120\$ 125

Ser Thr Glu Leu Thr Gly Leu Lys Asp Val Ile Lys Lys Asn Lys Arg $130 \\ 135 \\ 140$

Glu Arg Asp Glu Asp Ser Leu His Gln Thr Asp Leu Phe Asp Ser His 145 150 155 160

Met Leu Trp Phe Leu Met His His Leu Arg Gln Arg Arg His His Arg

Arg Trp Arg Glu Pro Gly Val Gly Ala Thr Asp Ala Asp Ser Asp Glu $180 \hspace{1cm} 185 \hspace{1cm} 190$

Ser Pro Ser Ser Ser Asp Thr Ser Asp Glu Glu Glu Gly Pro Asp Arg

Val Gln Cys Met Pro Ser 210

<210> 1586

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1586

Gln Ile Thr Pro Asn Lys Xaa Gly His Arg Glu Ser Ala Arg Arg Pro

1 5 10 15

Val Ile Gln Gly Pro Phe Leu Leu Asp Val Lys Glu Ser Trp Val Lys
20 25 30

Cys Gly Cys Asn Leu Asn Gln Leu Val Leu Val Ile Cys Phe Cys Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Cys Phe Leu Leu Ser Asn Ala Lys Cys Val Phe Cys Ser His Glu 50 55 60

Leu Lys His Lys Lys Met His Glu Thr Leu 65

<210> 1587

<211> 412

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (296)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1587

Ser Gly Thr His His Phe Ser Cys Val Leu Gly Ser Phe Arg Val Ser 1 $$ 5 $$ 10 $$ 15

Ala Met Phe Pro Arg Val Ser Thr Phe Leu Pro Leu Arg Pro Leu Ser 20 25 30

Arg His Pro Leu Ser Ser Gly Ser Pro Glu Thr Ser Ala Ala Ala Ile 35 40 45

Met Leu Leu Thr Val Arg His Gly Thr Val Arg Tyr Arg Ser Ser Ala $50 \hspace{1cm} 55 \hspace{1cm} 60$

Leu Leu Ala Arg Thr Lys Asn Asn Ile Gln Arg Tyr Phe Gly Thr Asn 65 70 75 80

Ser Val Ile Cys Ser Lys Lys Asp Lys Gln Ser Val Arg Thr Glu Glu 85 90 95

Thr Ser Lys Glu Thr Ser Glu Ser Gln Asp Ser Glu Lys Glu Asn Thr

Lys Lys Asp Leu Leu Gly Ile Ile Lys Gly Met Lys Val Glu Leu Ser 115 120 125

Thr	Val 130	Asn	Val	Arg	Thr	Thr 135	Lys	Pro	Pro	Lys	Arg 140	Arg	Pro	Leu	Lys
Ser 145	Leu	Glu	Ala	Thr	Leu 150	Gly	Arg	Leu	Arg	Arg 155	Ala	Thr	Glu	Tyr	Ala 160
Pro	Lys	Lys	Arg	11e 165	Glu	Pro	Leu	Ser	Pro 170	Glu	Leu	Val	Ala	Ala 175	Ala
Ser	Ala	Val	Ala 180	Asp	Ser	Leu	Pro	Phe 185	Asp	Lys	Gln	Thr	Thr 190	Lys	Ser
Glu	Leu	Leu 195	Ser	Gln	Leu	Gln	Gln 200	His	Glu	Glu	Glu	Ser 205	Arg	Ala	Gln
Arg	Asp 210	Ala	Lys	Arg	Pro	Lys 215	Ile	Ser	Phe	Ser	Asn 220	Ile	Ile	Ser	Asp
Met 225	Lys	Val	Ala	Arg	Ser 230	Ala	Thr	Ala	Arg	Val 235	Arg	Ser	Arg	PIO	Glu 240
Leu	Arg	Ile	Gln	Phe 245	Asp	Glu	Gly	Tyr	Asp 250	Asn	Tyr	Pro	Gly	Gln 255	Glu
Lys	Thr	Asp	Asp 260	Leu	Lys	Lys	Arg	Lys 265	Asn	Ile	Phe	Thr	Gly 270	Lys	Arg
Leu	Asn	11e 275	Phe	Asp	Met	Met	Ala 280	Val	Thr	Lys	Glu	Ala 285	Pro	Glu	Thr
	Thr 290					295					300				
Thr 305	Val	Asn	Glu	Gln	Pro 310	Leu	Gln	Asn	Gly	Phe 315	Glu	Glu	Leu	Ile	Gln 320
_	Thr	-		325			•		330					335	
Gly	Phe	Asp	Asp 340	Asp	Gly	Ser	Glu	Phe 345	His	Glu	His	Ile	Phe 350	Leu	Glu
Lys	His	Leu 355	Glu	Ser	Phe	Pro	Lys 360	Gln	Gly	Pro	Ile	Arg 365	His	Phe	Met
Glu	Leu 370	Val	Thr	Cys	Gly	10 Leu 10 3 7 5	Ser	Lys	Asn	Pro	Tyr 380	Leu	Ser	Val	Lys
Gln 385	Lys	Val	Glu	His	11e 390	Glu	Trp	Phe	Arg	Asn 395	Tyr	Phe	Asn	Glu	Lys 400

Lys Asp Ile Leu Lys Glu Ser Asn Ile Gln Phe Asn 405 410

<210> 1588

<211> 44 <212> PRT

<213> Homo sapiens

<400> 1588

Ala Ile His Ser Leu Gln Gln Phe Asp Lys Ile Tyr Phe Cys Glu Gln 1 5 10 15

Lys Leu Arg His Leu His Phe Leu Pro Met Trp Ser Leu Gln Thr Trp 20 25 30

Glu Thr Ile His Glu Tyr Leu Tyr Cys Met Val Ile \$35\$

<210> 1589

<211> 214 <212> PRT

<213> Homo sapiens

<400> 1589

Val Gly Glu Thr Gln His Ala Leu Arg Pro Leu Cys Lys Gln His Pro 1 $$ 15

Val Pro Pro Ser Ser Pro Arg Pro Ser Glu Glu Met Val Lys Met Val 20 \$20\$

Leu Ser Arg Pro Cys His Pro Asp Asp Gln Phe Thr Thr Ser Ile Leu 35 40 45

Arg His Trp Cys Met Lys His Asp Glu Leu Leu Ala Glu His Ile Lys $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$

Ser Leu Leu Ile Lys Asn Asn Ser Leu Pro Arg Lys Arg Gln Ser Leu 65 70 75 80

Arg Ser Ser Ser Lys Leu Ala Gln Leu Thr Leu Glu Gln Ile Leu 85 90 95

Glu His Leu Asp Asn Leu Arg Leu Asn Leu Thr Asn Thr Lys Gln Asn 100 105 110

Phe Phe Ser Gln Thr Pro Ile Leu Gln Ala Leu Gln His Val Gln Ala 115 120 125

Ser Cys Asp Glu Ala His Lys Met Lys Phe Ser Asp Leu Phe Ser Leu 130 135 Ala Glu Glu Tyr Glu Asp Ser Ser Thr Lys Pro Pro Lys Ser Arg Arg 145 150 155 Lys Ala Ala Leu Ser Ser Pro Arg Ser Arg Lys Asn Ala Thr Gln Pro Pro Asn Ala Glu Glu Glu Ser Gly Ser Ser Ser Ala Ser Glu Glu Glu 185 Asp Thr Lys Pro Lys Pro Thr Lys Arg Lys Arg Lys Gly Ser Ser Ala 195 200 Val Gly Ser Asp Ser Asp 210 <210> 1590 <211> 200 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (27) <223> Xaa equals any of the naturally occurring L-amino acids Lys Met His Ile Leu His Ala Asp Ile Lys Pro Asp Asn Ile Leu Val Asn Glu Ser Lys Thr Ile Leu Lys Leu Cys Xaa Phe Gly Ser Ala Ser 25 His Val Ala Asp Asn Asp Ile Thr Pro Tyr Leu Val Ser Arg Phe Tyr 35 40

Met Trp Ser Val Gly Cys Thr Leu Tyr Glu Leu Tyr Thr Gly Lys Ile 65 70 75 80

Arg Ala Pro Glu Ile Ile Ile Gly Lys Ser Tyr Asp Tyr Gly Ile Asp

Leu Phe Pro Gly Lys Thr Asn Asn His Met Leu Lys Leu Ala Met Asp 85 90 95

Leu Lys Gly Lys Met Pro Asn Lys Met Ile Arg Lys Gly Val Phe Lys

100 105 110 Asp Gln His Phe Asp Gln Asn Leu Asn Phe Met Tyr Ile Glu Val Asp 115 120 125 Lys Val Thr Glu Arg Glu Lys Val Thr Val Met Ser Thr Ile Asn Pro 135 Thr Lys Asp Leu Leu Ala Asp Leu Ile Gly Cys Gln Arg Leu Pro Glu 150 155 Asp Gln Arg Lys Lys Val His Gln Leu Lys Asp Leu Leu Asp Gln Ile 165 Leu Met Leu Asp Pro Ala Lys Arg Ile Ser Ile Asn Gln Ala Leu Gln 180 185 His Ala Phe Ile Gln Glu Lys Ile <210> 1591 <211> 115 <212> PRT <213> Homo sapiens <400> 1591 Val Thr Leu Ala Arg Ser Leu Gln Ser Arg Pro Val Ala Met Ser Ala Asp Val Thr Ser Ser Leu Ala Ala Phe Gly Glu Gly Trp Gly Val Arg 30 Glu Leu Ser Asp His Ser Ser Pro Arg Pro Leu Leu Gly Leu Ala Arg 35 40 Arg Ala Pro Arg Val Asp Pro Pro Ala Thr Gly Val Phe Ser Pro Leu

Leu Pro Pro Ser Gly Leu Met Arg Gln Arg Gly Gly Cys Gly Ala Cys

75

70

Lys Ser Arg 115

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<210> 1592
<211> 66
<212> PRT
<213> Homo sapiens
<400> 1592
Val Cys Cys Cys Lys Lys Ser Pro Met Cys Ile Thr Asn Ser Glu Tyr
Phe Leu Arg Leu Lys Lys Thr Gly Val Thr Ser Arg Tyr Cys Cys Val
Met Val Thr Leu Thr Lys Arg His Gln Pro Leu Arg Val Leu Tyr Cys
Lys Ala Gln Ile Thr Phe Val Cys Tyr Thr Leu Ile Gly Glu Leu Lys
                        55
Val Ile
65
<210> 1593
<211> 91
<212> PRT
<213> Homo sapiens
<400> 1593
Glu Ser Leu Trp Ala Phe Cys Leu Ser Leu Leu Glu Arg Leu Ala Cys
Cys Ser Leu Leu Tyr Pro Glu Val Cys Leu Trp Asp Phe Ser Pro Val
                                25
Ala Val Glu Thr Arg Arg Pro Thr Leu Phe Glu Thr Gln Met Leu Leu
         35
                            40
                                                 45
Ser Leu Ala Ser Pro Ser Leu Ser Ser Pro Asn Glu Pro Thr Phe Cys
Thr Ser Thr Arg Met Pro Gly Arg Leu Gly Pro Gln Arg Leu Leu Phe
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Gln Asn Leu Trp Lys Pro Arg Leu Asn Val Pro

<210> 1594 <211> 442 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1594 Leu Glu Gln Glu Leu Gly Asp Gly Trp Gly His Ser Asp Leu His Lys Ala Leu Leu Cys Arg Xaa Pro Pro Leu Pro Glu Pro Asp Ala Met Ser 20 Ser Lys Gly Ser Val Val Leu Ala Tyr Ser Gly Gly Leu Asp Thr Ser 40 Cys Ile Leu Val Trp Leu Lys Glu Gln Gly Tyr Asp Val Ile Ala Tyr Leu Ala Asn Ile Gly Gln Lys Glu Asp Phe Glu Glu Ala Arg Lys Lys Ala Leu Lys Leu Gly Ala Lys Lys Val Phe Ile Glu Asp Val Ser Arg Glu Phe Val Glu Glu Phe Ile Trp Pro Ala Ile Gln Ser Ser Ala Leu 100 105 Tyr Glu Asp Arg Tyr Leu Leu Gly Thr Ser Leu Ala Arg Pro Cys Ile 120 Ala Arg Lys Gln Val Glu Ile Ala Gln Arg Glu Gly Ala Lys Tyr Val 130 135 Ser His Gly Ala Thr Gly Lys Gly Asn Asp Gln Val Arg Phe Glu Leu 145 150 155 Ser Cys Tyr Ser Leu Ala Pro Gln Ile Lys Val Ile Ala Pro Trp Arg 170 Met Pro Glu Phe Tyr Asn Arg Phe Lys Gly Arg Asn Asp Leu Met Glu 180 185

Tyr Ala Lys Gln His Gly Ile Pro Ile Pro Val Thr Pro Lys Asn Pro

200

Trp Se		Asp	Glu	Asn	Leu 215	Met	His	Ile	Ser	Tyr 220	Glu	Ala	Gly	Ile
Leu Gl	ı Asn	Pro	Lys	Asn 230	Gln	Ala	Pro	Pro	Gly 235	Leu	Tyr	Thr	Lys	Thr 240
Gln As	Pro	Ala	Lys 245	Ala	Pro	Asn	Thr	Pro 250	Asp	Ile	Leu	Glu	11e 255	Glu
Phe Ly	. Lys	Gly 260	Val	Pro	Val	Lys	Val 265	Thr	Asn	Val	Lys	Asp 270	Gly	Thr
Thr His	Gln 275	Thr	Ser	Leu	Glu	Leu 280	Phe	Met	Tyr	Leu	Asn 285	Glu	Val	Ala
Gly Lys		Gly	Val	Gly	Arg 295	Ile	Asp	Ile	Val	Glu 300	Asn	Arg	Phe	Ile
Gly Met 305	. Lys	Ser	Arg	Gly 310	Ile	Tyr	Glu	Thr	Pro 315	Ala	Gly	Thr	Ile	Leu 320
Tyr His	Ala	His	Leu 325	Asp	Ile	Glu	Ala	Phe 330	Thr	Met	Asp	Arg	Glu 335	Val
Arg Lys	Ile	Lys 340	Gln	Gly	Leu	Gly	Leu 345	Lys	Phe	Ala	Glu	Leu 350	Val	Tyr
Thr Gly	Phe 355	Trp	His	Ser	Pro	Glu 360	Cys	Glu	Phe	Val	Arg 365	His	Cys	Ile
Ala Lys		Gln	Glu	Arg	Val 375	Glu	Gly	Lys	Val	Gln 380	Val	Ser	Val	Leu
Lys Gly	Gln	Val	Tyr	11e 390	Leu	Gly	Arg	Glu	Ser 395	Pro	Leu	Ser	Leu	Tyr 400

Asn Glu Glu Leu Val Ser Met Asn Val Gln Gly Asp Tyr Glu Pro Thr

Asp Ala Thr Gly Phe Ile Asn Ile Asn Ser Leu Arg Leu Lys Glu Tyr

425

410

415

430

His Arg Leu Gln Ser Lys Val Thr Ala Lys

405

420

<210> 1595

<211> 456

<212> PRT

<213> Homo sapiens

<400> 1595 Phe Gly Thr Ser Gln Phe Leu Leu Pro Leu Pro Ala Lys Met Ser Asp Met Glu Asp Asp Phe Met Cys Asp Asp Glu Glu Asp Tyr Asp Leu Glu 25 Tyr Ser Glu Asp Ser Asn Ser Glu Pro Asn Val Asp Leu Glu Asn Gln Tyr Tyr Asn Ser Lys Ala Leu Lys Glu Asp Asp Pro Lys Ala Ala Leu 50 Ser Ser Phe Gln Lys Val Leu Glu Leu Glu Gly Glu Lys Gly Glu Trp Gly Phe Lys Ala Leu Lys Gln Met Ile Lys Ile Asn Phe Lys Leu Thr Asn Phe Pro Glu Met Met Asn Arg Tvr Lvs Gln Leu Leu Thr Tvr Ile 100 Arg Ser Ala Val Thr Arg Asn Tyr Ser Glu Lys Ser Ile Asn Ser Ile 115 120 Leu Asp Tyr Ile Ser Thr Ser Lys Gln Met Asp Leu Leu Gln Glu Phe 135 Tyr Glu Thr Thr Leu Glu Ala Leu Lys Asp Ala Lys Asn Asp Arg Leu 145 150 155 Trp Phe Lys Thr Asn Thr Lys Leu Gly Lys Leu Tyr Leu Glu Arg Glu 170 Glu Tyr Gly Lys Leu Gln Lys Ile Leu Arg Gln Leu His Gln Ser Cys 185 Gln Thr Asp Asp Gly Glu Asp Asp Leu Lys Lys Gly Thr Gln Leu Leu 195 200 Glu Ile Tyr Ala Leu Glu Ile Gln Met Tyr Thr Ala Gln Lys Asn Asn

Lys Lys Leu Lys Ala Leu Tyr Glu Gln Ser Leu His Ile Lys Ser Ala 225 230 235 240 Ile Pro His Pro Leu Ile Met Gly Val Ile Arg Glu Cys Gly Lys 245 255 250 255

215

210

Met His Leu Arg Glu Gly Glu Phe Glu Lys Ala His Thr Asp Phe Phe

270 260 265

Glu Ala Phe Lys Asn Tyr Asp Glu Ser Gly Ser Pro Arg Arg Thr Thr 280

Cys Leu Lys Tyr Leu Val Leu Ala Asn Met Leu Met Lys Ser Gly Ile

Asn Pro Phe Asp Ser Gln Glu Ala Lys Pro Tyr Lys Asn Asp Pro Glu 310

315

Ile Leu Ala Met Thr Asn Leu Val Ser Ala Tyr Gln Asn Asn Asp Ile 330

Thr Glu Phe Glu Lvs Ile Leu Lvs Thr Asn His Ser Asn Ile Met Asp 345

Asp Pro Phe Ile Arg Glu His Ile Glu Glu Leu Leu Arg Asn Ile Arg 360

Thr Gln Val Leu Ile Lys Leu Ile Lys Pro Tyr Thr Arg Ile His Ile 370 375

Pro Phe Ile Ser Lys Glu Leu Asn Ile Asp Val Ala Asp Val Glu Ser 385 390 395

Leu Leu Val Gln Cvs Ile Leu Asp Asn Thr Ile His Gly Arg Ile Asp 405 410

Gln Val Asn Gln Leu Leu Glu Leu Asp His Gln Lys Arg Gly Gly Ala 420

Arg Tyr Thr Ala Leu Asp Lys Trp Thr Asn Gln Leu Asn Ser Leu Asn 440

Gln Ala Val Val Ser Lys Leu Ala 450 455

<210> 1596

<211> 375

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (176)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1596

ser 1	Phe	Gly	Glu	Arg 5	Ala	Pro	Ser	Thr	Arg 10	ser	Gly	Asp	Pro	Leu 15	Val
Ala	Val	Leu	Pro 20	Thr	Arg	Thr	Arg	Val 25	Pro	Gln	Ala	Ser	Arg 30	Cys	Pro
Ala	Gly	Ser 35	Ser	Cys	Pro	Thr	Pro 40	Gly	Ala	Arg	Pro	Pro 45	Ala	Ser	Pro
Gly	Pro 50	Leu	Pro	Arg	Pro	Ser 55	Ser	Arg	Arg	Ala	Arg 60	Ser	Met	Ala	Pro
Pro 65	Gln	Val	Leu	Ala	Phe 70	Gly	Leu	Leu	Leu	Ala 75	Ala	Ala	Thr	Ala	Thr 80
Phe	Ala	Ala	Ala	Gln 85	Glu	Glu	Сув	Val	Cys 90	Glu	Asn	Tyr	Lys	Leu 95	Ala
Val	Asn	Cys	Phe 100	Val	Asn	Asn	Asn	Arg 105	Gln	Cys	Gln	Cys	Thr 110	Ser	Val
Gly	Ala	Gln 115	Asn	Thr	Val	Ile	Cys 120	Ser	Lys	Leu	Ala	Ala 125	Lys	Cys	Leu
Val	Met 130	Lys	Ala	Glu	Met	Asn 135	Gly	Ser	Lys	Leu	Gly 140	Arg	Arg	Ala	Lys
Pro 145	Glu	Gly	Ala	Leu	Gln 150	Asn	Asn	Asp	Gly	Leu 155	Tyr	Asp	Pro	Asp	Cys 160
Asp	Gl u	Ser	Gly	Leu 165	Phe	Lys	Ala	Lys	Gln 170	Cys	Asn	Gly	Thr	Ser 175	Xaa
Cys	Trp	Cys	Val 180	Asn	Thr	Ala	Gly	Val 185	Arg	Arg	Thr	Asp	Lys 190	Asp	Thr
Glu	Ile	Thr 195	Cys	Ser	Glu	Arg	Val 200	Arg	Thr	Tyr	Trp	11e 205	Ile	Ile	Glu
Leu	Lys 210	His	Lys	Ala	Arg	Glu 215	Lys	Pro	Tyr	Asp	Ser 220	Lys	Ser	Leu	Arg
Thr 225	Ala	Leu	Gln	Lys	Glu 230	Ile	Thr	Thr	Arg	Туг 235	Gln	Leu	Asp	Pro	Lys 240
Phe	Ile	Thr	Ser	Ile 245	Leu	Tyr	Glu	Asn	Asn 250	Val	Ile	Thr	Ile	Asp 255	Leu
Val	Gln	Asn	Ser	Ser	Gln	Lys	Thr	Gln	Asn	Asp	Val	Asp	Ile	Ala	Asp

Val Ala Tyr Tyr Phe Glu Lys Asp Val Lys Gly Glu Ser Leu Phe His 275 280 285

Ser Lys Lys Met Asp Leu Thr Val Asn Gly Glu Gln Leu Asp Leu Asp 290 295 300

Pro Gly Gln Thr Leu Ile Tyr Tyr Val Asp Glu Lys Ala Pro Glu Phe 305 \$310\$

Ser Met Gln Gly Leu Lys Ala Gly Val Ile Ala Val Ile Val Val Val Val 325 \$330\$

Val Ile Ala Val Val Ala Gly Ile Val Val Leu Val Ile Ser Arg Lys $340 \hspace{1cm} 345 \hspace{1cm} 350$

Lys Arg Met Ala Lys Tyr Glu Lys Ala Glu Ile Lys Glu Met Gly Glu \$355\$

Met His Arg Glu Leu Asn Ala 370 375

<210> 1597 <211> 83

<212> PRT <213> Homo sapiens

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1597

Ala Leu Gly Pro Gln Ala Ser Pro Leu Gln Ser Leu Ala Ala Ser Leu l $1 \\ 5 \\ 10 \\ 15$

Asp Ala Glu Pro Ser Ser Ala Ala Val Pro Asp Gly Phe Pro Ala Gly $20 \\ 25 \\ 30$

Pro Thr Val Ser Pro Arg Arg Leu Ala Arg Pro Pro Gly Leu Glu Glu 35 40 45

Ala Leu Ser Ala Leu Gly Leu Gln Gly Glu Arg Asp Thr Pro Gly Thr 50 \$55\$

Ser Ser Pro Lys Ser Trp Xaa Gly Ser Arg Glu Arg Gln Lys His Ser 65 70 75 80

Val Gly Glu

<210> 1598

```
<211> 103
<212> PRT
<213> Homo sapiens
<400> 1598
Gln Pro Glu Val Pro Asp Arg Arg Cys Val Ile His Arg Arg Arg Arg
Tyr Gly Ser Ser Thr Glu Ala His Ala Lys Leu Ser Thr Met Ala Ser
                                 25
Ser Thr Val Pro Val Ser Ala Ala Gly Ser Ala Asn Glu Thr Pro Glu
         35
                             40
                                                45
Ile Pro Asp Asn Val Gly Asp Trp Leu Arg Gly Val Tyr Arg Phe Ala
                         55
Thr Asp Arg Asn Asp Phe Arg Arg Asn Leu Ile Leu Asn Leu Gly Leu
Phe Ala Ala Gly Val Trp Leu Ala Arg Asn Leu Ser Asp Ile Asp Leu
                 85
                                    9.0
Met Ala Pro Gln Pro Gly Val
           100
<210> 1599
<211> 154
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids
Arg Arg Thr Tyr Tyr Gly Lys Thr Trp Asn Cys Arg Ala Arg Tyr Leu
                                    10
```

Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Ala Asp Trp Gly Gly $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Gly Leu Ala Arg Pro Gly Leu Ala Cys Gln Gly Ala Gly Gly Gly 35 \$40\$

Gly Ser Ser Thr Met Ser Leu Gln Tyr Gly Ala Glu Glu Thr Pro Leu 50 55 60

Ala Gly Ser Tyr Gly Ala Ala Asp Ser Phe Pro Lys Asp Phe Gly Tyr 65 70 75 80

Gly Val Glu Glu Glu Glu Glu Ala Ala Ala Ala Gly Gly Val 85 90 95

Gly Ala Gly Ala Gly Gly Gly Cys Gly Pro Gly Gly Ala Asp Ser Ser 100 \$105\$

Lys Pro Arg Ile Leu Leu Met Gly Thr Pro Ala Gln Xaa Lys Phe Leu 115 120 125

His Pro Glu Ser Gly Val Xaa Ile Lys Met Phe Asn Gln Arg Asp Pro 130 135

Leu Phe Leu Gly Asn Tyr Gln Thr Arg Phe 145

<210> 1600

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1600

Gly Cys Ser Phe Lys Trp Gly Leu Thr Gly Asn Val Thr Leu Ser Arg

1 5 10 15

Asp Val Arg Glu Val Asp Pro Xaa Gln Gly Xaa Pro Gly Arg Gly Thr
20 25 30

Gly Cys Ala Leu Pro Gln Ser Glu Asn Leu Leu Tyr Val Val Arg Lys 35 40 45

Glu Gln Gly Asp Gln Ala Glu Ser Trp Ala Gly Val Glu Trp Lys Glu 50 \$55\$

Arg Arg Leu Xaa Arg Thr Gly Gly Gly Gly Pro Trp Leu Leu Leu Ser 65 70 75 80

Glu Met Gly Thr Thr Gly Gly Phe Glu Gln Arg Ser Ala Leu Ile Asp $85 \hspace{1cm} 90 \hspace{1cm} 95$

Leu Tyr Phe Ala Arg Val Ile Leu Ala Ala Ile Leu 100 105

<210> 1601

<211> 253

<212> PRT

<213> Homo sapiens

<400> 1601

Ala Pro Arg Ser Pro Arg Gly Arg Cys Gly Gly Thr Arg Ala Glu Ala 1 5 10 15

Ala Ala Ala Thr Trp Ala Ala Ala Gly Pro Arg Arg Arg Ala Val Arg \$20\$ \$25\$ \$30

Met Ser Gly Trp Ala Asp Glu Arg Gly Gly Glu Gly Asp Gly Arg Ile 35 40 45

Tyr Val Gly Asn Leu Pro Thr Asp Val Arg Glu Lys Asp Leu Glu Asp 50 55 60

Leu Phe Tyr Lys Tyr Gly Arg Ile Arg Glu Ile Glu Leu Lys Asn Arg 65 70 75 80

His Gly Leu Val Pro Phe Ala Phe Val Arg Phe Glu Asp Pro Arg Asp 85 90 95

Ala Glu Asp Ala Ile Tyr Gly Arg Asn Gly Tyr Asp Tyr Gly Gln Cys $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Arg Leu Arg Val Glu Phe Pro Arg Thr Tyr Gly Gly Arg Gly Gly Trp 115 120 125 Pro Arg Gly Gly Arg Asn Gly Pro Pro Thr Arg Arg Ser Asp Phe Arg 130 135 140

Asp His Met Arg Glu Ala Gly Asp Val Cys Tyr Ala Asp Val Gln Lys 165 170 175

Asp Gly Val Gly Met Val Glu Tyr Leu Arg Lys Glu Asp Met Glu Tyr 180 185 190

Ala Leu Arg Lys Leu Asp Asp Thr Lys Phe Arg Ser His Glu Gly Glu
195 200 205

Thr Ser Tyr Ile Arg Val Tyr Pro Glu Arg Ser Thr Ser Tyr Gly Tyr 210 215 220

 Ser Arg Ser Arg Ser Gly
 Ser Arg Gly Arg Asp Ser Pro Tyr Gln
 Ser 225
 230
 235
 240

Arg Gly Ser Pro His Tyr Phe Ser Pro Phe Arg Pro Tyr \$245\$

<210> 1602 <211> 310

<212> PRT

<213> Homo sapiens

<400> 1602

Pro Arg Ala Ala Arg Pro Pro Ala Met Glu Pro Gly Pro Asp Gly Pro 1 5 10 15

Ala Ala Ser Gly Pro Ala Ala Ile Arg Glu Gly Trp Phe Arg Glu Thr \$20\$ \$25\$ \$30

Cys Ser Leu Trp Pro Gly Gln Ala Leu Ser Leu Gln Val Glu Gln Leu 35 40 45

Lys Thr Tyr Gly Asn Val Leu Val Leu Asp Gly Val Ile Gln Cys Thr 65 70 75 80

Glu Arg Asp Glu Phe Ser Tyr Gln Glu Met Ile Ala Asn Leu Pro Leu $85 \hspace{1cm} 90 \hspace{1cm} 95$

Cys Ser His Pro Asn Pro Arg Lys Val Leu Ile Ile Gly Gly Asp $100 \hspace{1cm} 105 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Gly Gly Val Leu Arg Glu Val Val Lys His Pro Ser Val Glu Ser Val 115 120 125

Val Gln Cys Glu Ile Asp Glu Asp Val Ile Gln Val Ser Lys Lys Phe 130 135 140

Leu Pro Gly Met Ala Ile Gly Tyr Ser Ser Ser Lys Leu Thr Leu His 145 150 150 155

Val Gly Asp Gly Phe Glu Phe Met Lys Gln Asn Gln Asp Ala Phe Asp 165 170 175

Val Ile Ile Thr Asp Ser Ser Asp Pro Met Gly Pro Ala Glu Ser Leu 180 185 190

Phe Lys Glu Ser Tyr Tyr Gln Leu Met Lys Thr Ala Leu Lys Glu Asp 195 200 205

Gly Val Leu Cys Cys Gln Gly Glu Cys Gln Trp Leu His Leu Asp Leu 210 215 220

Ile Lys Glu Met Arg Gln Phe Cys Gln Ser Leu Phe Pro Val Val Ala 225 230 235 240

Tyr Ala Tyr Cys Thr Ile Pro Thr Tyr Pro Ser Gly Gln Ile Gly Phe \$245\$

Met Leu Cys Ser Lys Asn Pro Ser Thr Asn Phe Gln Glu Pro Val Gln 260 265 270

Pro Leu Thr Gln Gln Gln Val Ala Gln Met Gln Leu Lys Tyr Tyr Asn 275 280 285

Ser Asp Val His Arg Ala Ala Phe Val Leu Pro Glu Phe Ala Arg Lys $290 \hspace{1.5cm} 295 \hspace{1.5cm} 300$

Ala Leu Asn Asp Val Ser 305 310

<210> 1603

<211> 41 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1603
Val Asn Val Ser Gly Phe Val Gln Gly Thr Cys Lys Gly Phe Gly Ser
                                     1.0
Met Val Arg Xaa Glu Arg Gln Glu Leu Glu Xaa Met Leu Leu Xaa Lys
                               25
Ser Arg Asp Ile Asn Phe Gly Val Thr
        35
<210> 1604
<211> 132
<212> PRT
<213> Homo sapiens
<400> 1604
Ser Ala Trp Arg Ser Pro Asn Thr Ala Val Gln Pro Ala Ala Cys Pro
                 5
                                    10
Lys Gln Cys Asn Pro Glu Thr Arg Pro Val Glu Lys Lys Ile Arg Ser
            20
                                25
Ala Leu Pro Thr Lys Thr Val Lys Pro Val Glu Asn Lys Asp Asp Asp
Asp Ser Ile Ala Asp Phe Leu Asn Ser Asp Glu Glu Glu Asp Arg Val
                        55
Ser Leu Gln Asn Leu Lys Asn Leu Gly Glu Ser Ala Thr Leu Arg Ser
65
                    70
Leu Leu Leu Asn Pro His Leu Arg Gln Leu Met Val Asn Leu Asp Gln
```

Gly Glu Asp Lys Ala Lys Leu Met Arg Ala Tyr Met Gln Glu Pro Leu

105

```
Phe Val Glu Phe Ala Asp Cys Cys Leu Gly Ile Val Glu Pro Ser Gln
                            120
 Asn Glu Glu Ser
    130
<210> 1605
<211> 326
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (116)
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<220>
<221> SITE
<222> (182)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (226)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (285)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (287)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<222> (290) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (298) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (306) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1605 Pro Arg Ile His Leu Glu Asn Val Ser Glu Asp Glu Ile Asn Arg Leu Leu Gly Met Val Val Asp Val Glu Asn Leu Phe Met Ser Xaa Xaa Lys Glu Glu Asp Thr Asp Thr Lys Gln Val Tyr Phe Tyr Leu Phe Lys Leu 35 40 Leu Arg Lys Cys Ile Leu Gln Met Thr Arg Pro Val Val Glu Gly Ser Leu Gly Ser Pro Pro Phe Glu Lys Pro Asn Ile Glu Gln Gly Val Leu 70 75 Asn Phe Val Gln Tyr Lys Phe Ser His Leu Ala Pro Arg Glu Arg Gln 85 90 Thr Met Phe Glu Leu Ser Lys Met Phe Leu Leu Cys Leu Asn Tyr Trp 105 Lys Leu Glu Xaa Pro Ala Gln Phe Arg Gln Arg Ser Gln Ala Glu Asp Val Ala Thr Tyr Lys Val Asn Tyr Thr Arg Trp Leu Cys Tyr Cys His 130 135 140 Val Pro Gln Ser Cys Asp Ser Leu Pro Arg Tyr Glu Thr Thr His Val 145 150 Phe Gly Arg Ser Leu Leu Arg Ser Ile Phe Thr Val Thr Arg Arg Gln 170 Leu Leu Glu Lys Phe Xaa Val Glu Lys Asp Lys Leu Val Pro Glu Lys 180

Arg Thr Ser Ser Ser Leu Thr Ser Pro Ser Lys Ala Pro Ser Gly Leu

WO 00/55174 PCT/US00/05988 1441

195 200 205 Pro Gly Phe Gly Pro Lys Phe Thr Ser Ser Leu Leu Ser Pro Phe Phe 215 Gln Xaa Gly Phe Leu Asp Trp Ser Leu Leu Ser Leu His Gly Pro Phe 225 230 235 Gly Ile Trp Ala Ser Thr Trp Gln Thr Cys Pro Trp Pro Arg Ser Asn 245 250 Leu Leu Val Leu Val Trp Gly Trp Gln Ile Pro Val His Ala Gly Gly 260 265 Gly Asp Leu Trp Gly Lys Leu Ser Asn Leu Gly Val Xaa Leu Xaa His 280 Ala Xaa Leu Arg Gly Asp Thr Ala Gly Xaa Pro Gly Gln Leu Gln Ser 295

Val Xaa Gly Leu Phe Pro Ala Pro Pro Ser Ser Ala Pro Ala Trp Val

315

310

Gly Ala Ala Thr Ala Pro 325

<210> 1606

<211> 94

<212> PRT

<213> Homo sapiens

<220>

305

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1606

Phe Gly Thr Trp Lys Lys Lys Lys Lys Thr Leu Arg Asp Ser Leu Cys 10

Glu Asp Xaa Gly Val Ser Val Ser Val Leu Ser Pro Leu Leu Phe Pro

Asn Gln Gly Leu Cys His Tyr Cys Pro Ser Gln Leu Ser Met Gln Glu 50 55 60

Asp Arg Val Ala Trp Xaa Ser Tyr Pro Cys Pro Ser Pro Lys Gly Ser 65 70 75 80

Thr Arg Lys Leu Lys Arg Leu Lys Lys Lys Arg Val Cys Ser 85 90

<210> 1607

<211> 246

<212> PRT

<213> Homo sapiens

<400> 1607

Ala Ala Ala Trp Cys Ala Arg Leu Ala Gly Asp Gly Ile Arg Arg Thr 1 51015151515101515101

Trp Thr Pro Pro Glu Trp Lys Pro Lys Gln Glu Leu Leu Leu Arg

Gly Cys Arg Ser Arg Arg Glu Pro Pro Asp Arg Arg Gln Ser Glu Glu 35 40 45

Gly Ala Thr Arg Leu Gly Lys Met Thr Gln Phe Leu Pro Pro Asn Leu $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$

Leu Ala Leu Phe Ala Pro Arg Asp Pro Ile Pro Tyr Leu Pro Pro Leu 65 70 75 80

Glu Lys Leu Pro His Glu Lys His His Asn Gln Pro Tyr Cys Gly Ile $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ala Pro Tyr Ile Arg Glu Phe Glu Asp Pro Arg Asp Ala Pro Pro Pro 100 105 110

Thr Arg Ala Glu Thr Arg Glu Glu Arg Met Glu Arg Lys Arg Arg Glu 115 120 125

Lys Ile Glu Arg Arg Gln Gln Glu Val Glu Thr Glu Leu Lys Met Trp 130 135 140

Asp Pro His Asn Asp Pro Asn Ala Gln Gly Asp Ala Phe Lys Thr Leu 145 155 Phe Val Ala Arg Val Asn Tyr Asp Thr Thr Glu Ser Lys Leu Arg Arg 170 Glu Phe Glu Val Tyr Gly Pro Ile Lys Arg Ile His Met Val Tyr Ser 180 190 185 Lys Arg Ser Gly Lys Pro Arg Gly Tyr Ala Phe Ile Glu Tyr Glu His 200 Glu Arg Asp Met His Ser Ala Tyr Lys His Ala Asp Gly Lys Lys Ile 215 Asp Gly Arg Arg Val Leu Val Asp Val Glu Arg Gly Arg Thr Val Lys 225 235 Gly Trp Arg Pro Gly Gly 245 <210> 1608 <211> 65 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (60) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (62) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1608 Gly Pro Ser Leu Ser Leu Met Phe Lys Gln Ser Leu Ser Met Lys Leu 15 Gly Gly Asp Arg Val Ser Cys Gln Phe Leu Thr Ala Thr Ser His Gln 25 Trp Leu His Ser Val Ser Leu Thr Gln His Met Ala Gln Glu Cys Cys 35 40

His Pro Ser Val Phe Tyr Ser Ser Asn Pro Arg Xaa Trp Xaa Leu Arg

55

Asp 65 <210> 1609 <211> 213 <212> PRT <213> Homo sapiens <400> 1609 Glu Ser Gln Glu Asp Lys Glu Pro Lys Glu Glu Thr Pro Ala Gly Gly Arg Ala Ala Ala Asp Pro Gly Trp Gly Ser Gln Pro Ala Gln Gln 25 Arg Ala Ala Arg Lys Ala Ser Lys Glu Glu Gly Ala Arg Arg Gly Val Arg Gly Leu Gly Val Arg Pro Leu Arg Pro Leu Gly Asn Arg Glu Trp 55 Thr Ala Glu Gln Thr Val Gly Leu Ser Gly Val Trp Gly Asn Thr Gly Asn Ser Ser Gln Glu Gly Tyr Pro Pro Tyr Trp Leu Pro Pro Pro Ala 90 Ala Gln Leu Cys Pro Pro Glu Pro Ser Val Ser Leu Asn Pro Ser Leu 100 Phe Phe Pro Thr Ser Thr Phe Trp Thr Phe Pro Leu Pro Phe Pro Val 120 Phe Lys Ile Ser Val Thr Thr Pro Gly Thr Phe Ala Ala Asp Leu Gly 135 Val Leu Phe Lys Arg Lys Ser Gly Gly Trp Glu Ser Leu Gly Glu Leu 145 150 155 160 Arg Leu Arg Val Glu Gly Val Cys Pro Ser Leu Gly Val Leu Val Pro 165 Val Arg Gly Val Tyr Gly Leu Phe Pro Ser Pro Ser Leu Ile Phe Phe 185

Phe Phe Leu Lys Lys Ala Lys Met Arg Ile Asn Thr Ser Arg His Val

205

200

195 Lys Lys Lys Lys Lys 210

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<210> 1610
<211> 916
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (365)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (524)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (687)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (806)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1610
Arg Pro Thr Arg Pro Ala Gly Ser Thr Asp Cys His Gly Ala Ala Ala
                                     10
Gly Val Arg Ala Thr Leu Val Leu Glu Leu Leu Asp Thr Asp Gly Leu
Val Val Cys Ala Arg Gly Leu Gly Ala Asp Arg Leu Leu Tyr His Phe
         35
                             40
                                                 45
Leu Gln Leu His Cys His Pro Ala Cys Leu Val Leu Val Leu Asn Thr
Gln Pro Ala Glu Glu Tyr Phe Ile Asn Gln Leu Lys Ile Glu Gly
                    70
Val Glu His Leu Pro Arg Arg Val Thr Asn Glu Ile Thr Ser Asn Ser
                 85
```

Arg Tyr Glu Val Tyr Thr Gln Gly Gly Val Ile Phe Ala Thr Ser Arg

105

Ile	Leu	Val 115	Val	Asp	Phe	Leu	Thr 120	Asp	Arg	Ile	Pro	Ser 125	Asp	Leu	Ile
Thr	Gly 130	Ile	Leu	Val	туг	Arg 135	Ala	His	Arg	Ile	Ile 140	Glu	Ser	Cys	Gln
Glu 145		Phe	Ile	Leu	Arg 150	Leu	Phe	Arg	Gln	Lys 155	Asn	Lys	Arg	Gly	Phe 160
Ile	Lys	Ala	Phe	Thr 165	Asp	Asn	Ala	Val	Ala 170	Phe	Asp	Thr	Gly	Phe 175	Cys
His	Val	Glu	Arg 180	Val	Met	Arg	Asn	Leu 185	Phe	Val	Arg	Lys	Leu 190	Tyr	Leu
Trp	Pro	Arg 195	Phe	His	Val	Ala	Val 200	Asn	Ser	Phe	Leu	Glu 205	Gln	His	Lys
Pro	Glu 210	Val	Val	Glu	Ile	His 215	Val	Ser	Met	Thr	Pro 220	Thr	Met	Leu	Ala
11e 225	Gln	Thr	Ala	Ile	Leu 230	Asp	Ile	Leu	Asn	Ala 235	Cys	Leu	Lys	Glu	Leu 240
Lys	Cys	His	Asn	Pro 245	Ser	Leu	Glu	Val	Glu 250	Asp	Leu	Ser	Leu	Glu 255	Asn
Ala	Ile	Gly	Lys 260	Pro	Phe	Asp	Lys	Thr 265	Ile	Arg	His	Tyr	Leu 270	Asp	Pro
Leu	Trp	His 275	Gln	Leu	Gly	Ala	Lys 280	Thr	Lys	Ser	Leu	Val 285	Gln	Asp	Leu
Lys	Ile 290	Leu	Arg	Thr	Leu	Leu 295	Gln	Tyr	Leu	Ser	Gln 300	Tyr	Asp	Cys	Val
Thr 305	Phe	Leu	Asn	Leu	Leu 310	Glu	Ser	Leu	Arg	Ala 315	Thr	Glu	Lys	Ala	Phe 320
Gly	Gln	Asn	Ser	Gly 325	Trp	Leu	Phe	Leu	Asp 330	Ser	Ser	Thr	Ser	Met 335	Phe
Ile	Asn	Ala	Arg 340	Ala	Arg	Val	Туr	His 345	Leu	Pro	Asp	Ala	Lys 350	Met	Ser
Lys	Lys	Glu 355	Lys	Ile	Ser	Glu	Lys 360	Met	Glu	Ile	Lys	Xaa 365	Gly	Glu	Glu
Thr	Lys 370	Lys	Glu	Leu	Val	Leu 375	Glu	Ser	Asn	Pro	Lys 380	Trp	Glu	Ala	Leu

Thr 385	Glu	Val	Leu	Lys	Glu 390	Ile	Glu	Ala	Glu	Asn 395	Lys	Glu	Ser	Glu	Ala 400
Leu	Gly	Gly	Pro	Gly 405	Gln	Val	Leu	Ile	Cys 410	Ala	Ser	Asp	Asp	Arg 415	Thr
Суз	Ser	Gln	Leu 420	Arg	Asp	Tyr	Ile	Thr 425	Leu	Gly	Ala	Glu	Ala 430	Phe	Leu
Leu	Arg	Leu 435	Tyr	Arg	Lys	Thr	Phe 440	Glu	Lys	Asp	Ser	Lys 445	Ala	Glu	Glu
Val	Trp 450	Met	Lys	Phe	Arg	Lys 455	Glu	Asp	Ser	Ser	Lys 460	Arg	Ile	Arg	Lys
Ser 465	His	Lys	Arg	Pro	Lys 470	Asp	Pro	Gln	Asn	Lys 475	Glu	Arg	Ala	Ser	Thr 480
Lys	Glu	Arg	Thr	Leu 485	Lys	Lys	ГÀЗ		Arg 490	Lys	Leu	Thr	Leu	Thr 495	Gln
Met	Val	Gly	Lys 500	Pro	Glu	Glu	Leu	Glu 505	Glu	Glu	Gly	Asp	Val 510	Glu	Glu
Gly	Tyr	Arg 515	Arg	Glu	Ile	Ser	Ser 520	Ser	Pro	Glu	Xaa	Cys 525	Pro	Glu	Glu
Ile	Lys 530	His	G1u	Glu	Phe	Asp 535	Val	Asn	Leu	Ser	Ser 540	Asp	Ala	Ala	Phe
Gly 545	Ile	Leu	Lys	Glu	Pro 550	Leu	Thr	Ile	Ile	His 555	Pro	Leu	Leu	Gly	Cys 560
Ser	Asp	Pro	Tyr	Ala 565	Leu	Thr	Arg	Val	Leu 570	His	Glu	Val	Glu	Pro 575	Arg
Tyr	Val	Val	Leu 580	Tyr	Asp	Ala	Glu	Leu 585	Thr	Phe	Val	Arg	Gln 590	Leu	Glu
Ile	Tyr	Arg 595	Ala	Ser	Arg	Pro	Gly 600	Lys	Pro	Leu	Arg	Val 605	Tyr	Phe	Leu
Ile	Tyr 610	Gly	Gly	Ser	Thr	Glu 615	Glu	Gln	Arg	Tyr	Leu 620	Thr	Ala	Leu	Arg
Lys 625	Glu	Lys	Glu	Ala	Phe 630	Glu	Lys	Leu	Ile	Arg 635	Glu	Lys	Ala	Ser	Met 640
Val	Val	Pro	Glu	Glu 645	Arg	Glu	Gly	Arg	Asp 650	Glu	Thr	Asn	Leu	Asp 655	Leu

Val	Arg	Gly	Thr 660	Ala	Ser	Ala	Asp	Val 665	Ser	Thr	Asp	Thr	Arg 670	Lys	Ala
Gly	Gly	Gln 675	Glu	Gln	Asn	Gly	Thr 680	Gln	Gln	Ser	Ile	Val 685	Val	Xaa	Met
Arg	Glu 690	Phe	Arg	Ser	Glu	Leu 695	Pro	Ser	Leu	Ile	His 700	Arg	Arg	Asp	Ile
Asp 705	Ile	Glu	Pro	Val	Thr 710	Leu	Glu	Val	Gly	Asp 715	Tyr	Ile	Leu	Thr	Pro 720
Glu	Met	Cys	Val	Glu 725	Arg	Lys	Ser	Ile	Ser 730	Asp	Leu	Ile	Gly	Ser 735	Leu
Asn	Asn	Gly	Arg 740	Leu	Tyr	Ser	Gln	Cys 745	Ile	Ser	Met	Ser	Arg 750	Tyr	Tyr
Lys	Arg	Pro 755	Val	Leu	Leu	Ile	Glu 760	Phe	Asp	Pro	Ser	Lys 765	Pro	Phe	Ser
Leu	Thr 770	Ser	Arg	Gly	Ala	Leu 775	Phe	Gln	Glu	Ile	Ser 780	Ser	Asn	Asp	Ile
Ser 785	Ser	Lys	Leu	Thr	Leu 790	Leu	Thr	Leu	His	Phe 795	Pro	Arg	Leu	Arg	11e 800
Leu	Trp	Cys	Pro	Ser 805	Xaa	His	Ala	Thr	Ala 810	Glu	Leu	Phe	Glu	Glu 815	Leu
Lys	Gln	Ser	Lys 820	Pro	Gln	Pro	Asp	Ala 825	Ala	Thr	Ala	Leu	Ala 830	Ile	Thr
Ala	Asp	Ser 835	Glu	Thr	Leu	Pro	Glu 840	Ser	Glu	Lys	Tyr	Asn 845	Pro	Gly	Pro
Gln	Asp 850	Phe	Leu	Leu	Lys	Met 855	Pro	Gly	Val	Asn	Ala 860	Lys	Asn	Cys	Arg
Ser 865	Leu	Met	His	His	Val 870	Lys	Asn	Ile	Ala	Glu 875	Leu	Ala	Ala	Leu	Ser 880
Gln	Asp	Glu	Leu	Thr 885	Ser	Ile	Leu	Gly	Asn 890	Ala	Ala	Asn	Ala	Lys 895	Gln
Leu	Tyr	Asp	Phe 900	Ile	His	Thr	Ser	Phe 905	Ala	Glu	Val	Val	Ser 910	Lys	Gly
-		_	_												

Lys Gly Lys Lys 915 <210> 1611 <211> 197

<212> PRT <213> Homo sapiens

<400> 1611

Gly Gly Gly Pro Ala Pro Gly Asp Ile Val Phe Cys Arg Asn Gln Pro 1 $$ 15

Lys Asp Glu Asp Ala Asp Met Met Lys Tyr Ile Glu Thr Glu Leu Lys 20 25 30

Lys Arg Lys Gly Ile Val Glu His Glu Glu Gln Lys Val Lys Pro Lys $35 ext{ } 40 ext{ } 45$

Asn Ala Glu Asp Cys Leu Tyr Glu Leu Pro Glu Asn Ile Arg Val Ser 50 60

Ser Ala Lys Lys Thr Glu Glu Met Leu Ser Asn Gln Met Leu Ser Gly 65 70 75 80

Ile Pro Glu Val Asp Leu Gly Ile Asp Ala Lys Ile Lys Asn Ile Ile 85 90 95

Ser Thr Glu Asp Ala Lys Ala Arg Leu Leu Ala Glu Gln Asn Lys 100 105 110

Lys Lys Asp Ser Glu Thr Ser Phe Val Pro Thr Asn Met Ala Val Asn 115 120 125

Tyr Val Gln His Asn Arg Phe Tyr His Glu Glu Leu Asn Ala Pro Ile 130 135 140

Arg Arg Asn Lys Glu Glu Pro Lys Ala Arg Pro Leu Arg Val Gly Asp 145 150 155 160

Thr Glu Lys Pro Glu Pro Glu Arg Ser Pro Pro Asn Arg Lys Arg Pro 165 170 175

Ala Asn Glu Lys Ala Thr Asp Asp Tyr His Tyr Glu Lys Phe Lys Lys 180 185 190

Met Asn Arg Arg Tyr 195

<210> 1612 <211> 476

<212> PRT <213> Homo sapiens <400> 1612 Pro Arg Val Arg Gly Asp Val Gly Met Ala Gly Val Ala Ile Asp Thr 10 Val Glu Asp Thr Lys Ile Leu Phe Asp Gly Ile Pro Leu Glu Lys Met Ser Val Ser Met Thr Met Asn Gly Ala Val Ile Pro Val Leu Ala Asn 40 Phe Ile Val Thr Gly Glu Glu Gln Gly Val Pro Lys Glu Lys Leu Thr 55 60 50 Gly Thr Ile Gln Asn Asp Ile Leu Lys Glu Phe Met Val Arg Asn Thr Tyr Ile Phe Pro Pro Glu Pro Ser Met Lys Ile Ile Ala Asp Ile Phe 9.0 Glu Tyr Thr Ala Lys His Met Pro Lys Phe Asn Ser Ile Ser Ile Ser 100 105 Gly Tyr His Met Gln Glu Ala Gly Ala Asp Ala Ile Leu Glu Leu Ala 115 120 Tyr Thr Leu Ala Asp Gly Leu Glu Tyr Ser Arg Thr Gly Leu Gln Ala Gly Leu Thr Ile Asp Glu Phe Ala Pro Arg Leu Ser Phe Phe Trp Gly 150 155 Ile Gly Met Asn Phe Tyr Met Glu Ile Ala Lys Met Arg Ala Gly Arg 165 170 Arg Leu Trp Ala His Leu Ile Glu Lys Met Phe Gln Pro Lys Asn Ser 185 Lys Ser Leu Leu Leu Arq Ala His Cys Gln Thr Ser Gly Trp Ser Leu 200 Thr Glu Gln Asp Pro Tyr Asn Asn Ile Val Arg Thr Ala Ile Glu Ala 210 215

Asp Glu Ala Leu Gly Leu Pro Thr Val Lys Ser Ala Arg Ile Ala Arg 245 \$250\$

Met Ala Ala Val Phe Gly Gly Thr Gln Ser Leu His Thr Asn Ser Phe

235

230

WO 00/55174 PCT/US00/05988 1451

Asn Thr Gln Ile Ile Gln Glu Glu Ser Gly Ile Pro Lys Val Ala 260

Asp Pro Trp Gly Gly Ser Tyr Met Met Glu Cys Leu Thr Asn Asp Val 280

Tyr Asp Ala Ala Leu Lys Leu Ile Asn Glu Ile Glu Glu Met Gly Gly 295

Met Ala Lys Ala Val Ala Glu Gly Ile Pro Lys Leu Arg Ile Glu Glu 310 315

Cys Ala Ala Arg Arg Gln Ala Arg Ile Asp Ser Gly Ser Glu Val Ile 325

Val Gly Val Asn Lys Tyr Gln Leu Glu Lys Glu Asp Ala Val Glu Val 345

Leu Ala Ile Asp Asn Thr Ser Val Arg Asn Arg Gln Ile Glu Lys Leu 360

Lys Lys Ile Lys Ser Ser Arg Asp Gln Ala Leu Ala Glu Arg Cys Leu 370 375 380

Ala Ala Leu Thr Glu Cys Ala Ala Ser Gly Asp Gly Asn Ile Leu Ala 385

Leu Ala Val Asp Ala Ser Arg Ala Arg Cys Thr Val Gly Glu Ile Thr

Asp Ala Leu Lys Lys Val Phe Gly Glu His Lys Ala Asn Asp Arg Met 420 425 430

Val Ser Gly Ala Tyr Arg Gln Glu Phe Gly Glu Ser Lys Glu Ile Thr 435 440

Ser Ala Ile Lys Arg Val His Lys Phe Met Glu Arg Glu Gly Arg Ser

Ser Ser Ser Cys Ser Lys Asn Gly Thr Arg Trp Pro 470

<210> 1613 <211> 319

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (85) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (289) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1613 Gln His His Arg Ala Ala His Leu Lys Trp Ile Phe Val Gly Gly Lys 10 15 Gly Gly Val Gly Lys Thr Thr Cys Ser Cys Ser Leu Ala Val Gln Leu Ser Lys Gly Arg Glu Ser Val Leu Ile Ile Ser Thr Asp Pro Ala His 40 Asn Ile Ser Asp Ala Phe Asp Gln Lys Phe Ser Lys Val Pro Thr Lys 50 55 Val Lys Gly Tyr Asp Asn Leu Phe Ala Met Glu Ile Asp Pro Ser Leu 65 70 7.5 Gly Val Ala Xaa Xaa Pro Asp Glu Phe Phe Glu Glu Asp Asn Met Leu Ser Met Gly Lys Lys Met Met Gln Glu Ala Met Ser Ala Phe Pro Gly 100 105 Ile Asp Glu Ala Met Ser Tyr Ala Glu Val Met Arg Leu Val Lys Gly 115 Met Asn Phe Ser Val Val Val Phe Asp Thr Ala Pro Thr Gly His Thr 135 Leu Arg Leu Leu Asn Phe Pro Thr Ile Val Glu Arg Gly Leu Gly Arg 150 155 Leu Met Gln Ile Lys Asn Gln Ile Ser Pro Phe Ile Ser Gln Met Cys

Asn Met Leu Gly Leu Gly Asp Met Asn Ala Asp Gln Leu Ala Ser Lys

185

Leu Glu Glu Thr Leu Pro Val Ile Arg Ser Val Ser Glu Gln Phe Lys 195 200 205

Asp Pro Glu Gln Thr Thr Phe Ile Cys Val Cys Ile Ala Glu Phe Leu 210 \$215\$

Ser Leu Tyr Glu Thr Glu Arg Leu Ile Glu Glu Leu Ala Lys Cys Lys 225 235 230 235

Ile Asp Thr His Asn Ile Ile Val Asn Gln Leu Val Phe Pro Asp Pro \$245\$

Glu Lys Pro Cys Lys Met Cys Glu Ala Arg His Lys Ile Gln Ala Lys $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

Xaa Pro Leu Leu Pro His Glu Val Arg Gly Ala Asp Lys Val Asn Thr 290 295 300

Phe Ser Ala Leu Leu Glu Pro Tyr Lys Pro Pro Ser Ala Gln 305 310 315

<210> 1614

<211> 207

<212> PRT

<213> Homo sapiens

<400> 1614

His Glu Glu Arg Gly Gln Gly Arg Phe Leu Lys Met Ala Ala Leu Lys

Ala Leu Val Ser Gly Cys Gly Arg Leu Leu Arg Gly Leu Leu Ala Gly

Pro Ala Ala Thr Ser Trp Ser Arg Leu Pro Ala Arg Gly Phe Arg Glu

Val Val Glu Thr Gln Glu Gly Lys Thr Thr Ile Ile Glu Gly Arg Ile 50 55 60

Thr Ala Thr Pro Lys Glu Ser Pro Asn Pro Pro Asn Pro Ser Gly Gln 65 70 75 80

Cys Pro Ile Cys Arg Trp Asn Leu Lys His Lys Tyr Asn Tyr Asp Asp 85 90 95

Val Leu Leu Ser Gln Phe Ile Arg Pro His Gly Gly Met Leu Pro

100 105 110

Arg Lys Ile Thr Gly Leu Cys Gln Glu Glu His Arg Lys Ile Glu Glu
115 120 125

Cys Val Lys Met Ala His Arg Ala Gly Leu Leu Pro Asn His Arg Pro

Arg Leu Pro Glu Gly Val Val Pro Lys Ser Lys Pro Gln Leu Asn Arg

155

Tyr Leu Thr Arg Trp Ala Pro Gly Ser Val Lys Pro Ile Tyr Lys Lys

Gly Pro Arg Trp Asn Arg Val Arg Met Pro Val Gly Ser Pro Leu Leu 180 185 190

Arg Asp Asn Val Cys Tyr Ser Arg Thr Pro Trp Lys Leu Tyr His $195 \hspace{1.5cm} 200 \hspace{1.5cm} 205 \hspace{1.5cm}$

<210> 1615

<211> 304

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (174)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1615

Pro Thr Arg Pro Arg Val His Leu Ala Thr Val Ser Ala Ser Ala Ala 1 5 10 15

Trp Asp Ala Leu Gly Leu Pro Val Arg Ser His Met Gln Gly Ser Thr \$20\$ \$25\$ 30

Arg Arg Met Gly Val Met Thr Asp Val His Arg Arg Phe Leu Gln Leu 35 40 45

Leu Met Thr His Gly Val Leu Glu Glu Trp Asp Val Lys Arg Leu Gln 50 60

Thr His Cys Tyr Lys Val His Asp Arg Asn Ala Thr Val Asp Lys Leu 65 70 75 80

Glu Asp Phe Ile Asn Asn Ile Asn Ser Val Leu Glu Ser Leu Tyr Ile

Glu Ile Lys Arg Gly Val Thr Glu Asp Asp Gly Arg Pro Ile Tyr Ala $100 \hspace{1cm} 105 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Leu Val Asn Leu Ala Thr Thr Ser Ile Ser Lys Met Ala Thr Asp Phe \$115\$

Ala Glu Asn Glu Leu Asp Leu Phe Arg Lys Ala Leu Glu Leu Ile Ile 130 135 140

Asp Ser Glu Thr Gly Phe Ala Ser Ser Thr Asn Ile Leu Asn Leu Val 145 150 155 160

Asp Gln Leu Lys Gly Lys Lys Met Arg Lys Lys Glu Ala Xaa Gln Val

Leu Gln Lys Phe Val Gln Asn Lys Trp Leu Ile Glu Lys Glu Gly Glu 180 185

Phe Thr Leu His Gly Arg Ala Ile Leu Glu Met Glu Gln Tyr Ile Arg 195 200 205

Glu Thr Tyr Pro Asp Ala Val Lys Ile Cys Asn Ile Cys His Ser Leu

Leu Ile Gln Gly Gln Ser Cys Glu Thr Cys Gly Ile Arg Met His Leu 225 230 235 240

Pro Cys Val Ala Lys Tyr Phe Gln Ser Asn Ala Glu Pro Arg Cys Pro \$245\$ \$250\$

His Cys Asn Asp Tyr Trp Pro His Glu Ile Pro Lys Val Phe Asp Pro 260 265 270

Glu Lys Glu Arg Glu Ser Gly Val Leu Lys Ser Asn Lys Lys Ser Cys \$275\$ 280 285

Gly Pro Gly Ser Ile Ser His Arg Ala Leu Leu Arg Gly Trp Leu Pro $290 \hspace{1cm} 295 \hspace{1cm} 300$

<210> 1616

<211> 223

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (216) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1616 Ala Glu Xaa Leu Gly Gly Pro Gly Xaa Ala Ser Gly Gly Glu Thr Ser Val Glu Arg Arg Arg Thr Cys Ala Phe Asp Thr Leu Glu Ala Phe Leu 25 Ile Met Asp Gly Glu Asp Ile Pro Asp Phe Ser Ser Leu Lys Glu Glu 35 40 Thr Ala Tyr Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Arg Ala Thr Ile Val Ser Leu Glu Asp Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu 70 75 Arg Asn Ala Phe Leu Glu Ser Glu Leu Asp Glu Lys Glu Ser Leu Leu 85 90 Val Ser Val Gln Arg Leu Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu 100 105 Leu Ala Val Arg Glu Arg Gln Gln Glu Val Thr Arg Lys Ser Ala Pro Ser Ser Pro Thr Leu Asp Cys Glu Lys Met Asp Ser Ala Val Gln Ala 130 135 140 Ser Leu Ser Leu Pro Ala Thr Pro Val Gly Lys Gly Thr Glu Asn Thr 145 150 155 Phe Pro Ser Pro Lys Ala Ile Pro Asn Gly Phe Gly Thr Ser Pro Leu 170 Thr Pro Ser Ala Arg Ile Ser Ala Leu Asn Ile Val Gly Gly Ser Leu

Thr Glu Ser Arg Gly Phe Arg Ile Gln Ile Ser Ser Leu Gln Glu Phe

200 195 205

Cys Lys Gly Pro Ser Ile Thr Xaa Ile Leu Tyr Phe Arg Glu Cys 210 215 220

<210> 1617

<211> 138

<212> PRT

<213> Homo sapiens

<400> 1617

Val Lys Gln Tyr Leu Arg Thr Gly Tyr Lys Gln Tyr Phe Leu Lys Leu

Ser Pro Ile Phe Pro Pro Met Arg Pro Phe Gln Thr Gln Ile Ser His

Asn Arg Ala Arg Thr Ile Ile Thr Ser Pro Asp Ser Glu Pro Glu Cys 40

Phe Pro Gln Asp Cys Val Ala Pro Asn Ala Leu Arg Ser Ile Val Gly 50 5.5

Glu Ser Cys His Trp Asp Ser Thr Ser Arg Pro Gly Asp Gln Ala Ser

Arg Ile Pro Leu Glu Thr Pro Pro Leu Phe His Tyr His Pro Ala Thr

Ser Ser Ser Ala Met Pro Trp Phe Pro Leu Glu Ser Ser Gln Ser Gln 100

Arg Arg Pro Pro Thr Thr Ser Lys Ala Ser Lys Val Leu Glu Ser Ala 115 120 125

Pro Arg Leu Asn Arg Ala Ser Ile Ser Ser 130 135

<210> 1618 <211> 388

<212> PRT

<213> Homo sapiens

<400> 1618

Ala Glu Ser Thr Ala Arg Val Cys Cys Pro Ser Pro Arg Tyr Ala Gln 5 10

Ser Arg Arg Ser Pro Ala Trp Gly Glu Gln Ser Asp His Arg Pro Gly Ala Ala Arg Arg Asp Ala Arg Cys Ala Leu Cys Pro Arg Ala Pro Thr Ala Pro Ala Ala Ala Glu Ala Gln Arg Glu Asn Ala Pro Pro Arg 50 55 Gly Pro Gly Ala Ala Ser Asp Pro Leu Ala Thr Cys Ala Gln Pro Glu Val Ser Ser Glu Arg Arg Ala Gly Gly Gln Arg Gly Val Arg Gly Pro 90 Pro Pro Ala Ala Arg Ala Arg Pro Leu Met Ala Ala Ile Arg Lys Lys Leu Val Val Val Gly Asp Gly Ala Cys Gly Lys Thr Cys Leu Leu Ile 115 120 Val Phe Ser Lys Asp Glu Phe Pro Glu Val Tyr Val Pro Thr Val Phe Glu Asn Tyr Val Ala Asp Ile Glu Val Asp Gly Lys Gln Val Glu Leu 155 Ala Leu Trp Asp Thr Ala Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Pro Asp Thr Asp Val Ile Leu Met Cys Phe Ser Val Asp 185 Ser Pro Asp Ser Leu Glu Asn Ile Pro Glu Lys Trp Val Pro Glu Val 200 Lys His Phe Cys Pro Asn Val Pro Ile Ile Leu Val Ala Asn Lys Lys 210 215 Asp Leu Arg Ser Asp Glu His Val Arg Thr Glu Leu Ala Arg Met Lys 225 230 235 Gln Glu Pro Val Arg Thr Asp Asp Gly Arg Ala Met Ala Val Arg Ile 250 Gln Ala Tyr Asp Tyr Leu Glu Cys Ser Ala Lys Thr Lys Glu Gly Val 260 265 Arg Glu Val Phe Glu Thr Ala Thr Arg Ala Ala Ala Glu Ala Leu Arg 275 280

Leu Pro Glu Arg Leu His Gln Leu Leu Gln Gly Ala Met Arg Ala Ala 290 295 300

Pro Val Ala Pro Ala Pro Ala Gly Thr Ala Pro Pro Pro Gly Pro Val 305 \$310\$

Pro Arg Glu Pro Gly Glu Gly Glu Thr Arg Val Pro Gln Gly Pro His

Arg Pro Ala Trp His Leu Ser Ala Asp Ala Ser Gly Leu Arg Gln Asp $340 \hspace{1cm} 345 \hspace{1cm} 350$

Leu Ala Trp Ala Pro Gly Ala Pro Ile Pro Val Ser Val Cys Val Gln \$355\$

Leu Cys Cys Thr Gly Leu Gly Ser Pro Leu Ser Ala Lys Gly Pro Leu 370 375 380

Ser Met Leu Phe 385

<210> 1619

<211> 184 <212> PRT

<213> Homo sapiens

<400> 1619

Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Gly Thr Arg 1 $51015151510151510151015101$

Gly Arg Thr Arg Gly Arg Glu Gly Arg Ser Leu Trp Arg Lys Met Ala 20 25 30

Ala Ala Trp Gly Ser Ser Leu Thr Ala Ala Thr Gln Arg Ala Val Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Pro Trp Pro Arg Gly Arg Leu Leu Thr Ala Ser Leu Gly Pro Gln Ala 50 60

Arg Arg Glu Ala Ser Ser Ser Pro Glu Ala Gly Glu Gly Gln Ile 65 70 75 80

Arg Leu Thr Asp Ser Cys Val Gln Arg Leu Leu Glu Ile Thr Glu Gly 85 90 95

Ser Glu Phe Leu Arg Leu Gln Val Glu Gly Gly Gly Cys Ser Gly Phe 100 105 110

Gln Tyr Lys Phe Ser Leu Asp Thr Val Ile Asn Pro Asp Asp Arg Val

120 115 125 Phe Glu Gln Gly Gly Ala Arg Val Val Val Asp Ser Asp Ser Leu Ala 135 Phe Val Lys Gly Ala Gln Val Asp Phe Ser Gln Glu Leu Ile Arg Ser 150 155 Ser Phe Gln Val Leu Asn Asn Pro Gln Ala Gln Gln Gly Cys Ser Cys 170 Gly Ser Ser Phe Ser Ile Lys Leu 180 <210> 1620 <211> 468 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids Xaa Ala Pro Xaa Gly Pro Pro Ala Pro Pro Ala Leu Pro Pro Ala Ala Ser Pro Gly Ala Pro Ala Arg Arg Pro Gly Gly Arg Ser Glu Glu Lys Ile Ser Asp Ser Glu Gly Phe Lys Ala Asn Leu Ser Leu Leu Arg Arg 35 40 45 Pro Gly Glu Lys Thr Tyr Thr Gln Arg Cys Arg Leu Phe Val Gly Asn 50 55 Leu Pro Ala Asp Ile Thr Glu Asp Glu Phe Lys Arg Leu Phe Ala Lys Tyr Gly Glu Pro Gly Glu Val Phe Ile Asn Lys Gly Lys Gly Phe Gly

90

Phe Ile Lys Leu Glu Ser Arg Ala Leu Ala Glu Ile Ala Lys Ala Glu

85

			100					105					110		
Leu	Asp	Asp 115	Thr	Pro	Met	Arg	Gly 120	Arg	Gln	Leu	Arg	Val 125	Arg	Phe	Ala
Thr	His 130	Ala	Ala	Ala	Leu	Ser 135	Val	Arg	Asn	Leu	Ser 140	Pro	Tyr	Val	Ser
Asn 145	Glu	Leu	Leu	Glu	Glu 150	Ala	Phe	ser	Gln	Phe 155	Gly	Pro	Ile	Glu	Arg 160
Ala	Val	Val	Ile	Val 165	Asp	Asp	Arg	Gly	Arg 170	Ser	Thr	Gly	Lys	Gly 175	Ile
Val	Glu	Phe	Ala 180	Ser	Lys	Pro	Ala	Ala 185	Arg	Lys	Ala	Phe	Glu 190	Arg	Cys
Ser	Glu	Gly 195	Val	Phe	Leu	Leu	Thr. 200	Thr	Thr	Pro	Arg	Pro 205	Val	Ile	Val
Glu	Pro 210	Leu	Glu	Gln	Leu	Asp 215	Asp	Glu	Asp	Gly	Leu 220	Pro	Glu	Lys	Leu
Ala 225	Gln	Lys	Asn	Pro	Met 230	Tyr	Gln	Lys	Glu	Arg 235	Glu	Thr	Pro	Pro	Arg 240
Phe	Ala	Gln	His	Gly 245	Thr	Phe	Glu	туг	Glu 250	Tyr	Ser	Gln	Arg	Trp 255	Lys
Ser	Leu	Asp	Glu 260	Met	Glu	Lys	Gln	Gln 265	Arg	Glu	Gln	Val	Glu 270	Lys	Asn
Met	Lys	Asp 275	Ala	Lys	Asp	Lys	Leu 280	Glu	Ser	Glu	Met	Glu 285	Asp	Ala	Tyr
His	Glu 290	His	Gln	Ala	Asn	Leu 295	Leu	Arg	Gln	Asp	Leu 300	Met	Arg	Arg	Gln
Glu 305	Glu	Leu	Arg	Arg	Met 310	Glu	Glu	Leu	His	Asn 315	Gln	Glu	Met	Gln	Lys 320
Arg	Lys	Glu	Met	Gln 325	Leu	Arg	Gln	Glu	Glu 330	Glu	Arg	Arg	Arg	Arg 335	Glu
Glu	Glu	Met	Met 340	Ile	Arg	Gln	Arg	Glu 345	Met	Glu	Glu	Gln	Met 350	Arg	Arg
Gln	Arg	Glu 355	Glu	Ser	Tyr	Ser	Arg 360	Met	Gly	Tyr	Met	Asp 365	Pro	Arg	Glu

Arg Asp Met Arg Met Gly Gly Gly Ala Met Asn Met Gly Asp Pro

PCT/US00/05988

370 375 380

Tyr Gly Ser Gly Gly Gln Lys Phe Pro Pro Leu Gly Gly Gly Gly 390 395

Ile Gly Tyr Glu Ala Asn Pro Gly Val Pro Pro Ala Thr Met Ser Gly 410

Ser Met Met Gly Ser Asp Met Arg Thr Glu Arg Phe Gly Gln Gly Gly

Ala Gly Pro Val Gly Gly Gln Gly Pro Arg Gly Met Gly Pro Gly Thr

Pro Ala Gly Tyr Gly Arg Gly Arg Glu Glu Tyr Glu Gly Pro Asn Lys 455 460

Lys Pro Arg Phe

465

<210> 1621

<211> 114

<212> PRT

<213> Homo sapiens

<400> 1621

Ala Pro Ala Pro Thr Ser Cys Ser Leu Lys Pro Cys Ile Gly His Pro

Val Pro Ser Ser Gly Tyr Ser Cys His Val Gly Pro Thr Leu Ser Cys 20

Gly Thr Lys Arg Gly Thr Gln His Gly Asn Leu Thr Pro Glu Arg Ser 35 40

Asp Val Trp Phe Ala Leu Gln Leu Asn Arg Lys Leu Arg Leu Gly Val

Gly Asn Arg Ala Ile Arg Thr Glu Lys Ile Ile Cys Arg Asp Val Ala 75

Arg Gly Tyr Glu Asn Val Pro Ile Pro Cys Val Lys Val Trp Met Gly 90

Ser Pro Ala Leu Arg Ile Thr Ser Thr Ser Gln Arg Thr Ala Arg Arg 100 105 110

Pro Pro

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<210> 1622
<211> 399
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (397)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1622
Glu Val Cys His Gly Gly His Arg Gly Xaa Leu Gln Ser Trp Xaa Pro
Pro Arg Glu Ala Glu Ser Leu Gln Pro Met Thr Val Val Gly Thr Asp
Tyr Val Phe His Asn Asp Thr Lys Val Val Phe Leu Ser Pro Ala Val
                             40
Pro Glu Glu Pro Glu Ala Tyr Asn Leu Thr Val Leu Ile Glu Met Asp
                         55
Gly His Arg Ala Leu Leu Arg Thr Glu Ala Gly Ala Phe Glu Tyr Val
 65
                     70
                                        75
Pro Asp Pro Thr Phe Glu Asn Phe Thr Gly Gly Val Lys Lys Gln Val
Asn Lys Leu Ile His Ala Arg Gly Thr Asn Leu Asn Lys Ala Met Thr
           100
                               105
Leu Gln Glu Ala Glu Ala Phe Val Gly Ala Glu Arg Cys Thr Met Lys
       115
                            120
                                                125
Thr Leu Thr Glu Thr Asp Leu Tyr Cys Glu Pro Pro Glu Val Gln Pro
    130
                       135
```

Pro Pro Lys Arg Arg Gln Lys Arg Asp Thr Thr His Asn Leu Pro Glu 150 155 Phe Ile Val Lys Phe Gly Ser Arg Glu Trp Val Leu Gly Arg Val Glu Tyr Asp Thr Arg Val Ser Asp Val Pro Leu Ser Leu Ile Leu Pro Leu 180 185 Val Ile Val Pro Met Val Val Val Ile Ala Val Ser Val Tyr Cys Tyr 200 Trp Arg Lys Ser Gln Gln Ala Glu Arg Glu Tyr Glu Lys Ile Lys Ser 215 Gln Leu Glu Gly Leu Glu Glu Ser Val Arg Asp Arg Cys Lys Lys Glu 225 230 235 Phe Thr Asp Leu Met Ile Glu Met Glu Asp Gln Thr Asn Asp Val His 245 250 Glu Ala Gly Ile Pro Val Leu Asp Tyr Lys Thr Tyr Thr Asp Arg Val 265 Phe Phe Leu Pro Ser Lys Asp Gly Asp Lys Asp Val Met Ile Thr Gly 280 Lys Leu Asp Ile Pro Glu Pro Arg Arg Pro Val Val Glu Gln Ala Leu 290 295 300 Tyr Gln Phe Ser Asn Leu Leu Asn Ser Lys Ser Phe Leu Ile Asn Phe 305 310 315 Ile His Thr Leu Glu Asn Gln Arg Glu Phe Ser Ala Arg Ala Lys Val 330 Tyr Phe Ala Ser Leu Leu Thr Val Ala Leu His Gly Lys Leu Glu Tyr 340 Tyr Thr Asp Ile Met His Thr Leu Phe Leu Glu Leu Leu Glu Gln Tyr 355 360 365 Val Val Ala Lys Asn Pro Lys Leu Met Leu Arg Arg Ser Glu Thr Val

370 375 380

Val Glu Arg Met Leu Ser Asn Trp Met Ser Ile Leu Xaa Pro Ile

390

395

385

<211> 189 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (154) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1623 Ile Tyr Asp Phe Arg Thr Gly Met Arg Leu Lys Lys Glu Glu Lys Ser 5 10 Arg Gln Glu Leu Glu Lys Leu Lys Arg Lys Leu Glu Gly Asp Ala Ser 25 Asp Phe His Glu Gln Ile Ala Asp Leu Gln Ala Gln Ile Ala Glu Leu Lys Met Gln Leu Ala Lys Lys Glu Glu Glu Leu Gln Xaa Ala Leu Ala 55 Arg Leu Asp Asp Glu Ile Leu Gln Lys Asn Asn Ala Leu Lys Lys Ile Arg Glu Leu Glu Gly His Ile Ser Asp Leu Gln Glu Asp Leu Asp Ser 85 Glu Arq Ala Ala Arq Asn Lys Ala Glu Lys Gln Lys Arq Asp Leu Gly Glu Glu Leu Glu Ala Leu Lys Thr Glu Leu Glu Asp Thr Leu Asp Ser 115 120 Thr Ala Thr Gln Gln Glu Leu Arg Ala Lys Arg Glu Gln Glu Val Thr 130 135

Val Leu Lys Lys Ala Leu Asp Glu Glu Xaa Arg Ser His Glu Ala Gln 145 150 155 160 Val Gln Glu Met Arg Gln Lys His Ala Gln Ala Val Glu Glu Leu Lys

165 170 175

Gln Arg Ala Gly His Arg Ala His Thr Gly Pro Glu Glu 180 185 <210> 1624 <211> 276 <212> PRT <213> Homo sapiens <400> 1624 Leu Ile Ser Pro Val Trp Gly Asn Ile Gln Arg Ser Arg Ser Val Pro 5 Leu Phe Pro Ser Gly Leu Val Leu Gly Gly Ile Trp Ala Arg Gly Pro Leu Leu Ala Leu Leu Ala Ser Phe Asn Ile Ile Ser Val Leu Asn Ala 40 Glu Cys Tyr Leu Lys Gln Ile Leu His Pro Thr Ser His Phe Thr Val 55 Ser Glu Thr Pro Pro Leu Ser Gly Asn Asp Thr Asp Ser Leu Ser Cys 70 Asp Ser Gly Ser Ser Ala Thr Ser Thr Pro Cys Val Ser Arg Leu Val Thr Gly His His Leu Trp Ala Ser Lys Asn Gly Arg His Val Leu Gly 105 Leu Ile Glu Asp Tyr Glu Ala Leu Leu Lys Gln Ile Ser Gln Gly Gln 115 Arg Leu Leu Ala Glu Met Asp Ile Gln Thr Gln Glu Ala Pro Ser Ser 135 Thr Ser Gln Glu Leu Gly Thr Lys Gly Pro His Pro Ala Pro Leu Ser 150 Lys Phe Val Ser Ser Val Ser Thr Ala Lys Leu Thr Leu Glu Glu Ala 165 170 175 Tyr Arg Arg Leu Lys Leu Leu Trp Arg Val Ser Leu Pro Glu Asp Gly Gln Cys Pro Leu His Cys Glu Gln Ile Gly Glu Met Lys Ala Glu Val

195 200 205

Thr Lys Leu His Lys Leu Phe Glu Gln Glu Lys Lys Leu Gln Asn

Thr Met Lys Leu Gln Leu Ser Lys Arg Gln Glu Lys Val Ile Phe

220

215

210

225 230 235 240

Asp Gln Leu Val Val Thr His Lys Ile Leu Arg Lys Ala Arg Gly Asn 245 250 255

Leu Glu Leu Arg Pro Gly Gly Ala His Pro Gly Thr Cys Ser Pro Ser 260 \$265\$

Arg Pro Gly Ser 275

<210> 1625

<211> 133 <212> PRT

(212) PRT

<213> Homo sapiens

<400> 1625

Gln Ser Ala Val Gly Asn Thr Ala Thr Thr Leu Pro Trp Gln Gly Pro 1 $$ 5 $$ 10 $$ 15

Glu Ser Ile Ser Gly Gly Ala Ala His Val Cys Met Cys Cys Val Ser 20 25 30

Glu His Thr Arg Val His Thr His Thr His Val His Thr His Ala Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Ser Pro Leu Arg Gly Leu Glu Val Trp Leu Ser Pro Trp Gly Lys Val 50 60

Ser Ser Phe Ile Ser Leu Leu Gln Val Gly Val Pro Gly Val Arg Cys $65 \hspace{1cm} 70 \hspace{1cm} 75 \hspace{1cm} 80 \hspace{1cm}$

Arg Gly His Ile Ala Gly Cys Pro Leu Phe Val Ala Pro Ile Lys Gly 85 90 95

Pro His Leu Val Asp Thr Trp Leu Ser Val Trp Ser Leu Pro Gln Pro 100 105 110

Val Leu Val Thr Ile Thr Gly Leu Ala Phe Val Thr Met Met Thr Pro \$125\$

Ala Cys Leu Ile Phe 130

<210> 1626

<211> 677

<212> PRT

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<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (339)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (538)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (544)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1626
Ser Ser Gly Met Ala Leu Ala Val Ala Ala Xaa Ala Glu Ala Gln Ala
Ala Arg Pro Gln Trp Arg Leu Glu Pro Glu Arg Arg Arg Arg His
                                25
Pro Gly Glu Phe Lys Met Ala Ala Gly Gly Thr Gly Gly Leu Arg Glu
                                                 45
         35
                             40
Glu Gln Arg Tyr Gly Leu Ser Cys Gly Arg Leu Gly Gln Asp Asn Ile
Thr Val Leu His Val Lys Leu Thr Glu Thr Ala Ile Arg Ala Leu Glu
                                        75
                     7.0
Thr Tyr Gln Ser His Lys Asn Leu Ile Pro Phe Arg Pro Ser Ile Gln
                 85
                                     90
Phe Gln Gly Leu His Gly Leu Val Lys Ile Pro Lys Asn Asp Pro Leu
            100
                               105
Asn Glu Val His Asn Phe Asn Phe Tyr Leu Ser Asn Val Gly Lys Asp
Asn Pro Gln Gly Ser Phe Asp Cys Ile Gln Gln Thr Phe Ser Ser Ser
    130
                        135
                                           140
Gly Ala Ser Gln Leu Asn Cys Leu Gly Phe Ile Gln Asp Lys Ile Thr
```

145					150					155					160
Val	Cys	Ala	Thr	Asn 165	Asp	Ser	Tyr	Gln	Met 170	Thr	Arg	Glu	Arg	Met 175	Thr
Gln	Ala	Glu	Glu 180	Glu	Ser	Arg	Asn	Arg 185	Ser	Thr	Lys	Va1	11e 190	Lys	Pro
Gly	Gly	Pro 195	Tyr	Val	Gly	Lys	Arg 200	Val	Gln	Ile	Arg	Lys 205	Ala	Pro	Gln
Ala	Val 210	Ser	Asp	Thr	Val	Pro 215	Glu	Arg	Lys	Arg	Ser 220	Thr	Pro	Met	Asn
Pro 225	Ala	Asn	Thr	Ile	Arg 230	Lys	Thr	His	Ser	Ser 235	ser	Thr	Ile	Ser	G1n 240
Arg	Pro	Tyr	Arg	Asp 245	Arg	Va1	Ile	His	Leu 250	Leu	Ala	Leu	Lys	Ala 255	Tyr
Lys	Lys	Pro	Glu 260	Leu	Leu	Ala	Arg	Leu 265	Gln	Lys	Asp	Gly	Val 270	Asn	Gln
Lys	Asp	Lys 275	Asn	Ser	Leu	Gly	Ala 280	Ile	Leu	Gln	Gln	Val 285	Ala	Asn	Leu
Asn	Ser 290	Lys	Asp	Leu	Ser	Туг 295	Thr	Leu	Lys	Asp	Tyr 300	Val	Phe	Lys	Glu
Leu 305	Gln	Arg	Asp	Trp	Pro 310	Gly	Tyr	Ser	Glu	11e 315	Asp	Arg	Arg	Ser	Leu 320
Glu	Ser	Val	Leu	Ser 325	Arg	Lys	Leu	Asn	Pro 330	Ser	Gln	Asn	Ala	Thr 335	Gly
Thr	Ser	Хаа	Ser 340	Glu	Ser	Pro	Val	Cys 345	Ser	Ser	Arg	Asp	Ala 350	Val	Ser
Ser	Pro	Gln 355	Lys	Arg	Leu	Leu	Asp 360	Ser	Glu	Phe	Ile	Asp 365	Pro	Leu	Met
Asn	Lys 370	Lys	Ala	Arg	Ile	ser 375	His	Leu	Thr	Asn	Arg 380	Val	Pro	Pro	Thr
Leu 385	Asn	Gly	His	Leu	Asn 390	Pro	Thr	Ser	Glu	Lys 395	ser	Ala	Ala	Gly	Leu 400
Pro	Leu	Pro	Pro	Ala 405	Ala	Ala	Ala	Ile	Pro 410	Thr	Pro	Pro	Pro	Leu 415	Pro
Ser	Thr	Tyr	Leu	Pro	Ile	Ser	His	Pro	Pro	Gln	Ile	Val	Asn	Ser	Asn

			420					425					430		
ser	Asn	Ser 435	Pro	Ser	Thr	Pro	Glu 440	Gly	Arg	Gly	Thr	Gln 445	Asp	Leu	Pro
Val	Asp 450	Ser	Phe	ser	Gln	Asn 455	Asp	ser	Ile	Tyr	Glu 460	Asp	Gln	Gln	Asp
Lys 465	Tyr	Thr	ser	Arg	Thr 470	ser	Leu	Glu	Thr	Leu 475	Pro	Pro	Gly	Ser	Val 480
Leu	Leu	Lys	Cys	Pro 485	Lys	Pro	Met	Glu	Glu 490	Asn	His	Ser	Met	Ser 495	His
Lys	Lys	Ser	Lys 500	Lys	Lys	Ser	Lys	Lys 505	His	Lys	Glu	Lys	Asp 510	Gln	Ile
Lys	Lys	His 515	Asp	Ile	Glu	Thr	11e 520	Glu	Glu	Lys	Glu	Glu 525	Asp	Leu	Lys
Arg	Glu 530	Glu	Glu	Ile	Ala	Lys 535		Asn	Xaa	Ser	ser 540	Pro	Asn	Ser	Хаа
Gly 545	Gly	Val	Lys	Glu	Asp 550	Cys	Thr	Ala	Ser	Met 555	Glu	Pro	Ser	Ala	11e 560
Glu	Leu	Pro	Asp	Туг 565	Leu	Ile	Lys	туг	Ile 570	Ala	Ile	Val	Ser	T yr 575	Glu
Gln	Arg	Gln	Asn 580	Tyr	Lys	Asp	Asp	Phe 585	Asn	Ala	Glu	Tyr	Asp 590	Glu	Tyr
Arg	Ala	Leu 595	His	Ala	Arg	Met	Glu 600	Thr	Val	Ala	Arg	Arg 605	Phe	Ile	Lys
Leu	Asp 610	Ala	Gln	Arg	Lys	Arg 615	Leu	Ser	Pro	Gly	Ser 620	Lys	Glu	Tyr	Gln
Asn 625	Val	His	Glu	Glu	Val 630	Leu	Gln	Glu	Tyr	Gln 635	Lys	Ile	Lys	Gln	Ser 640
ser	Pro	Asn	Tyr	His 645	Glu	Glu	Lys	Tyr	Arg 650	Cys	Glu	Tyr	Leu	His 655	Asn
Lys	Leu	Ala	His 660	Ile	Lys	Arg	Leu	Ile 665	Gly	Glu	Phe	Asp	Gln 670	Gln	Gln

Ala Glu Ser Trp Ser 675

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<210> 1627
<211> 124
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (108)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1627
Gly Pro Trp Gly Gly Phe Glu Leu Ser Arg Leu Cys Pro Tyr Arg Leu
  1
                  5
                                     10
                                                         15
Pro Arg His Thr Arg Ser Val Phe Pro Leu Ser Pro Pro Ser Arg Ala
Gly Pro Ser Gly Ile Glu Gly Ala Gly Ser Pro Arg Thr Arg Ala Gln
Lys Ser Pro Thr Gly Ser Cys Ile Phe Xaa Arg Thr Ile Pro Gly Ala
                         55
Leu Arg Gly Val Ser Gly Glu Thr Gly His Arg Gln Ser His Gly Pro
 65
                    7.0
                                         75
Pro Pro Lys Ala Gln Ala Pro Pro Ala Pro Pro His Pro Ser Ser Leu
Thr His Ala Ala Ser Pro Pro Pro Cys Arg Cys Xaa Gly Gln Ser Pro
                               105
Val Arg Pro Lys Thr Gly Leu Val Pro Gly Xaa Ala
        115
```

120

<210> 1628 <211> 277

<212> PRT

<213> Homo sapiens <220> <221> SITE <222> (176) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1628 Thr His Val Val Arg His Ala Tyr Arg Ser Tyr Phe Thr Phe Ile Gly 10 Arg Val Ala Gly Leu Ala Val Phe His Gly Lys Leu Leu Asp Gly Phe 20 Phe Ile Arg Pro Phe Tyr Lys Met Met Leu Gly Lys Gln Ile Thr Leu 40 Asn Asp Met Glu Ser Val Asp Ser Glu Tyr Tyr Asn Ser Leu Lys Trp 55 Ile Leu Glu Asn Asp Pro Thr Glu Leu Asp Leu Met Phe Cvs Ile Asp 65 Glu Glu Asn Phe Gly Gln Thr Tyr Gln Val Asp Leu Lys Pro Asn Gly Ser Glu Ile Met Val Thr Asn Glu Asn Lys Arg Glu Tyr Ile Asp Leu 105 Val Ile Gln Trp Arg Phe Val Asn Arg Val Gln Lys Gln Met Asn Ala 115 120 Phe Leu Glu Gly Phe Thr Glu Leu Leu Pro Ile Asp Leu Ile Lys Ile Phe Asp Glu Asn Glu Leu Glu Leu Leu Met Cys Gly Leu Gly Asp Val 150 155 Asp Val Asn Asp Trp Arq Gln His Ser Ile Tyr Lys Asn Gly Tyr Xaa 165 170 175 Pro Asn His Pro Val Ile Gln Trp Phe Trp Lys Ala Val Leu Leu Met 180 Asp Ala Glu Lys Arg Ile Arg Leu Leu Gln Phe Val Thr Gly Thr Ser

Arg Val Pro Met Asn Gly Phe Ala Glu Leu Tyr Gly Ser Asn Gly Pro Gin Leu Phe Thr Ile Glu Gin Trp Gly Ser Pro Glu Lys Leu Pro Arq

220

200

215

210

225 230 235 240

Ala His Thr Cys Phe Asn Arg Leu Asp Leu Pro Pro Tyr Glu Thr Phe 245 250 255

Glu Asp Leu Arg Glu Lys Leu Leu Met Ala Val Glu Asn Ala Gln Gly \$260\$

Phe Glu Gly Val Asp 275

<210> 1629 <211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1629

Ser Arg Val Arg Ala Leu Tyr Lys Arg Val Leu Gln Leu His Arg Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Leu Pro Pro Asp Leu Lys Ser Leu Gly Asp Gln Tyr Val Lys Asp Glu 35 40 45

Phe Arg Arg His Lys Thr Val Gly Ser Asp Glu Ala Gln Arg Phe Leu $50 \hspace{1cm} 55 \hspace{1cm} 60$

Gln Glu Trp Glu Val Tyr Ala Thr Ala Leu Leu Gln Gln Ala Asn Glu 65 70 75 80

Asn Arg Gln Asn Ser Thr Gly Lys Ala Cys Phe Gly Thr Phe Leu Pro 85 $90\,$ 95

Glu Glu Lys Leu Asn Asp Phe Arg Asp Glu Gln Ile Gly Gln Leu Gln
100 105 110

Glu Leu Met Gln Glu Ala Thr Lys Pro Asn Arg Gln Phe Ser Ile Ser 115 120 125

Glu Ser Met Lys Pro Lys Phe 130 135

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<210> 1630
<211> 233
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (195)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (222)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (223)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (227)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (231)
<223> Xaa equals any of the naturally occurring L-amino acids
Met Cys Pro Ser Cys Ser Pro Cys Gly Met Asp Trp Val Val Glu Thr
                  5
Met Pro Gln Gly Val Cys Gly Met Ser Pro Ser Val Trp Ser Val Xaa
                                 25
Xaa Glu Thr Val Arg Gly Leu Leu Leu His His Pro Thr Leu Pro Asn
```

Pro Tyr Thr Met Ala Val Ala Ala Arg Val Thr Ala Ala Thr Thr Val

Thr His Ile Thr Ala Phe Asp Pro Asp Ser Thr Gly Gln Gln Val Trp 65 70 75 80

Gln Asp Leu Leu Gln Asp Gly Gln Leu Asp Ser Pro Thr Gly Gln Ser 85 90 95

Ser Lys Leu Arg Pro Arg Gly Gln Cys Arg Leu Glu Phe Ser Leu Ala 115 120 125

Trp Asp Met Pro Arg Ile Met Phe Gly Ala Lys Gly Gln Val His Tyr 130 135 140

Arg Arg Tyr Thr Arg Phe Phe Gly Gln Asp Gly Asp Ala Ala Pro Ala 145 \$150\$

Leu Ser His Tyr Ala Leu Cys Arg Tyr Ala Glu Trp Glu Glu Arg Ile 165 170 175

Ser Ala Trp Gln Ser Pro Val Leu Asp Asp Arg Ser Leu Pro Ala Trp $180 \hspace{1cm} 185 \hspace{1cm} 190$

Tyr Lys Xaa Ala Leu Phe Asn Glu Leu Tyr Phe Leu Ala Asp Gly Gly 195 200 205

Thr Val Trp Leu Glu Val Leu Glu Asp Ile Gln Asp Lys Xaa Xaa Phe 210 215 220

Tyr Pro Xaa Arg Gly Gln Xaa Ala Tyr 225 230

<210> 1631

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1631 Trp Gly Pro Arg Leu Pro Pro Pro Xaa Lys Lys Ala Leu Leu Ala Leu 10 Lys Lys Gln Ser Ser Ser Ser Thr Thr Ser Gln Gly Gly Val Lys Arg 2.5 Ser Leu Ser Glu Gln Pro Val Met Asp Thr Ala Thr Ala Thr Glu Gln Ala Lys Gln Leu Val Lys Ser Gly Ala Ile Ser Ala Ile Lys Ala Glu 50 55 60 Thr Lys Asn Ser Gly Phe Lys Arg Ser Arg Thr Leu Glu Gly Lys Leu Lys Asp Pro Glu Lys Gly Pro Val Pro Thr Phe Gln Pro Phe Gln Arg 90 Ser Ile Ser Ala Asp Asp Asp Leu Glm Glu Ser Ser Arg Arg Pro Glm 100 105 Arg Lys Ser Leu Tyr Xaa Ser Ser Leu Ala Val Gln Asn Ser Pro Lys 115 120 Gly Cys His Arg Asp Lys Arg Thr Gln Ile Val Tyr Ser Asp Asp Val 135 Tyr Lys Glu Asn Leu Val Asp Gly Phe 145 150

<210> 1632

<211> 224

<212> PRT

<213> Homo sapiens

<400> 1632

Pro Thr Arg Cys Gly Ala Ser Gly Ser Arg Pro Pro Ser Gly Ser Asp

Pro Ala Asn Gly Phe Gly Tyr Ile Phe Met Leu Gly Phe Ile Thr Arg

Pro Pro His Arg Phe Leu Ser Leu Leu Cys Pro Gly Leu Arg Ile Pro

Gln Leu Ser Val Leu Cys Ala Gln Pro Arg Pro Arg Ala Met Ala Ile $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$

Ser Ser Ser Cys Glu Leu Pro Leu Val Ala Val Cys Gln Val Thr 65 70 75 80

Ser Thr Pro Asp Lys Gln Gln Asn Phe Lys Thr Cys Ala Glu Leu Val $$85\ \ 90\ \ 95$

Arg Glu Ala Ala Arg Leu Gly Ala Cys Leu Ala Phe Leu Pro Glu Ala 100 105 110

Phe Asp Phe Ile Ala Arg Asp Pro Ala Glu Thr Leu His Leu Ser Glu 115 120 125

Pro Leu Gly Gly Lys Leu Leu Glu Glu Tyr Thr Gln Leu Ala Arg Glu 130 135 140

Cys Gly Leu Trp Leu Ser Leu Gly Gly Phe His Glu Arg Gly Gln Asp 145 \$150\$

Trp Glu Gln Thr Gln Lys Ile Tyr Asn Cys His Val Leu Leu Asn Ser 165 170 175

Lys Gly Ala Val Val Ala Thr Tyr Arg Lys Thr His Leu Cys Asp Val \$180\$

Glu Ile Pro Gly Gln Gly Leu Cys Val Lys Ala Thr Leu Pro Cys Leu 195 200 205

Gly Pro Val Leu Ser His Leu Ser Ala His Gln Gln Ala Arg Leu Val 210 215 220

<210> 1633

<211> 668

<212> PRT

<213> Homo sapiens

<400> 1633

Thr Ile Asn Gly Val Ile Leu Ile Ser Val Phe Phe Ser Phe Phe Phe 1 5 10 15

Leu His Pro Met Leu Ser Val Val Val Cys Val Val Gly Leu Ser Pro $20 \\ 25 \\ 30$

Gly Gln Tyr Phe Tyr Phe Gln Glu Val Phe Pro Val Leu Ala Ala Lys

WO 00/55174 PCT/US00/05988 1478

35 40 45 His Cys Ile Met Gln Ala Asn Ala Glu Tyr His Gln Ser Ile Leu Ala 55 Lys Gln Gln Lys Lys Phe Gly Glu Glu Ile Ala Arg Leu Gln His Ala Ala Glu Leu Ile Lys Thr Val Ala Ser Arg Tyr Asp Glu Tyr Val Asn 90 Val Lys Asp Phe Ser Asp Lys Ile Asn Arg Ala Leu Ala Ala Ala Lys 105 Lys Asp Asn Asp Phe Ile Tyr His Asp Arg Val Pro Asp Leu Lys Asp 120 Leu Asp Pro Ile Gly Lys Ala Thr Leu Val Lys Ser Thr Pro Val Asn 135 Val Pro Ile Ser Gln Lys Phe Thr Asp Leu Phe Glu Lys Met Val Pro 145 150 155 Val Ser Val Gln Gln Ser Leu Ala Ala Tyr Asn Gln Arg Lys Ala Asp Leu Val Asn Arg Ser Ile Ala Gln Met Arg Glu Ala Thr Thr Leu Ala 185 Asn Gly Val Leu Ala Ser Leu Asn Leu Pro Ala Ala Ile Glu Asp Val 195 200 Ser Gly Asp Thr Val Pro Gln Ser Ile Leu Thr Lys Ser Arg Ser Val 210 215 Ile Glu Gln Gly Gly Ile Gln Thr Val Asp Gln Leu Ile Lys Glu Leu 230 235 Pro Glu Leu Leu Gln Arg Asn Arg Glu Ile Leu Asp Glu Ser Leu Arg 245 250 255 Leu Leu Asp Glu Glu Glu Ala Thr Asp Asn Asp Leu Arg Ala Lys Phe 260 265 Lys Glu Arg Trp Gln Arg Thr Pro Ser Asn Glu Leu Tyr Lys Pro Leu 280 Arg Ala Glu Gly Thr Asn Phe Arg Thr Val Leu Asp Lys Ala Val Gln 290 295 300 Ala Asp Gly Gln Val Lys Glu Cys Tyr Gln Ser His Arg Asp Thr Ile

305	310		315	320
Val Leu Leu Cys	Lys Pro Glu 325	Pro Glu Leu 330	Asn Ala Ala Il	le Pro Ser 335
Ala Asn Pro Ala 340		Gln Gly Ser 345	Glu Val Val As	
Lys Ser Leu Leu 355	Ser Asn Leu	Asp Glu Val 360	Lys Lys Glu Ar 365	g Glu Gly
Leu Glu Asn Asp 370	Leu Lys Ser 375	Val Asn Phe	Asp Met Thr Se	er Lys Phe
Leu Thr Ala Leu 385	Ala Gln Asp 390	Gly Val Ile	Asn Glu Glu Al 395	a Leu Ser 400
Val Thr Glu Lev	Asp Arg Val 405	Tyr Gly Gly 410	Leu Thr Thr Ly	s Val Gln 415
Glu Ser Leu Lys 420		Gly Leu Leu 425	Lys Asn Ile Gl 43	
His Gln Glu Phe 435	Ser Lys Met	Lys Gln Ser 440	Asn Asn Glu Al 445	a Asn Leu
Arg Glu Glu Val 450	Leu Lys Asn 455	Leu Ala Thr	Ala Tyr Asp As 460	n Phe Val
Glu Leu Val Ala 465	Asn Leu Lys 470	Glu Gly Thr	Lys Phe Tyr As 475	n Glu Leu 480
Thr Glu Ile Leu	Val Arg Phe 485	Gln Asn Lys 490	Cys Ser Asp Il	e Val Phe 495
Ala Arg Lys Thr 500		Glu Leu Leu 505	Lys Asp Leu Gl 51	
Ile Ala Arg Glu 515	Pro Ser Ala	Pro Ser Ile 520	Pro Thr Pro Al 525	a Tyr Gln
Ser Ser Pro Ala 530	Gly Gly His 535	Ala Pro Thr	Pro Pro Thr Pr 540	o Ala Pro
Arg Thr Met Pro	Pro Thr Lys 550	Pro Gln Pro	Pro Ala Arg Pr 555	o Pro Pro 560
Pro Val Leu Pro	Ala Asn Arg 565	Ala Pro Ser 570	Ala Thr Ala Pr	o Ser Pro 575
Val Gly Ala Gly	Thr Ala Ala	Pro Ala Pro	Ser Gln Thr Pr	o Gly Ser

580 585 590

Ala Pro Pro Pro Gln Ala Gln Gly Pro Pro Tyr Pro Thr Tyr Pro Gly 595 600 605

Tyr Pro Gly Tyr Cys Gln Met Pro Met Pro Met Gly Tyr Asn Pro Tyr 610 615 620

Ala Tyr Gly Gln Tyr Asn Met Pro Tyr Pro Pro Val Tyr His Gln Ser 625 630 635 640

Pro Gly Gln Ala Pro Tyr Pro Gly Pro Gln Gln Pro Ser Tyr Pro Phe

Pro Gln Pro Pro Gln Gln Ser Tyr Tyr Pro Gln Gln
660 665

<210> 1634

<211> 99

<212> PRT

<213> Homo sapiens

<220> <221> SITE

-2217 DIII

<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

~222> (10

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1634

Gly Glu Ala Ala Lys Met Ser Ser Glu Pro Pro Pro Tyr Pro Gly
1 5 10 15

Gly Pro Thr Ala Pro Leu Leu Glu Glu Lys Ser Gly Ala Pro Pro Thr

```
Pro Gly Arg Ser Ser Pro Ala Val Met Gln Pro Pro Gly Met Pro 35 $40$
```

Leu Pro Pro Ala Asp Ile Gly Pro Pro Pro Tyr Glu Pro Pro Gly Xaa 50 \$55\$

Pro Met Pro Gln Pro Gly Phe Ile Pro Pro Xaa Met Ser Xaa Asp Gly 65 70 75 80

Xaa Tyr Met Pro Pro Gly Phe Leu Pro Phe Phe Arg Gly Pro His Pro 85 90 95

Pro Leu Gly

<210> 1635

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1635

Gly Glu Ala Ala Phe Cys Pro Ser Pro His Ser His Leu Ile Tyr Leu 1 5 10 15

Ile Gln Ser Gln Leu Leu Lys Phe Gly Lys Asp Gln Ile Ala Leu Gln $20 \ 25 \ 30$

Phe Phe Ser Leu Cys Ser Ile Leu Lys Ser Trp Lys Ile Leu Trp Asn \$35\$

Ser Ser Val Tyr Arg Ala Gln Val Lys Ala Leu Ser Lys Val Tyr Leu $50 \\ 60$

Phe Ile Tyr Tyr Pro Lys Asn Ala Leu Pro

<210> 1636

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1636

Arg His Arg Ser Val Ser Thr Pro Arg Ala Gly Gly Ile Val Trp Phe $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

His Glu Gly Leu Lys Ser Val Ile Pro Lys Val Gly Leu Gln Ala Ala 20 25 30

Ala Pro Ser Ile Cys Val Phe Leu Ser Gly Thr Val Gly Leu Tyr Xaa 35 404045

Arg Leu Thr Cys Phe Gly Ser Arg Gly Ile Ile Leu Gly Phe Gly Lys 50

Thr His Phe

65

<210> 1637

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1637

Thr Phe Ile Tyr Val Gly Leu Tyr Leu Thr Ile Cys Asn Phe Lys Val 1 5 10 15

Met Leu Gly Gln Xaa Asn Val Ser Ala Ser Arg Ile Ala Ile Lys Tyr \$20\$ \$25\$

His Thr Lys Phe Gly Gly Arg Thr Asp Leu Cys Tyr Lys Glu Met Glu 35 40 45

Lys Ser Ser Leu Cys His Gly Asp Glu Lys Pro Ala Ser His Ser Asn 50 55 60

<210> 1638

<211> 93

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (90) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1638 Gln Arg Gly Asp Ser Ala Asp Thr Ala Ser Leu Arg Phe Asn Thr Pro Ser Phe Asp Leu Ser Cys Pro His Tyr Pro Arg Lys Ile Gln Ser Ser 20 Phe Gln Ser Ile Leu Ile Asn Pro Leu Asp Pro Lys Phe Arg Glu Val 40 Pro Leu Pro Ser Ser Leu Leu Pro Gly Pro Thr Glu Glu His Pro Thr Thr Leu His Gln Leu Leu Lys Thr His Lys Gly Lys Ile Pro Thr Gly Pro Cys Gln Glu Val Val Glu Leu Pro Xaa Arg Phe His 85 <210> 1639 <211> 222

<212> PRT

<213> Homo sapiens

<400> 1639

His Glu Leu Asn Cys Lys Asp Ala Val Ser Arg Lys Arg Ser His Ser 5 1.0

Ala Ser Glu Lys Ser Gly Thr Gly Thr Ser Ile Ser Lys Arg Leu Asn 2.5

Met Asn Pro Gln Ile Arg Asn Pro Met Lys Ala Met Tyr Pro Gly Thr 40

Phe Tyr Phe Gln Phe Lys Asn Leu Trp Glu Ala Asn Asp Arg Asn Glu 50

Thr Trp Leu Cys Phe Thr Val Glu Gly Ile Lys Arg Arg Ser Val Val 65 70

Ser Trp Lys Thr Gly Val Phe Arg Asn Gln Val Asp Ser Glu Thr His

Cys His Ala Glu Arg Cys Phe Leu Ser Trp Phe Cys Asp Asp Ile Leu 105

Ser Pro Asn Thr Lys Tyr Gln Val Thr Trp Tyr Thr Ser Trp Ser Pro 115

Cys Pro Asp Cys Ala Gly Glu Val Ala Glu Phe Leu Ala Arg His Ser 130

Asn Val Asn Leu Thr Ile Phe Thr Ala Arg Leu Tyr Tyr Phe Gln Tyr 150 155

Pro Cys Tyr Gln Glu Gly Leu Arg Ser Leu Ser Gln Glu Gly Val Ala 170

Val Glu Ile Met Asp Tyr Glu Asp Phe Lys Tyr Cys Trp Glu Asn Phe 180 185

Val Tyr Asn Asp Asn Glu Pro Phe Lys Pro Trp Lys Gly Leu Lys Thr 200

Asn Phe Arg Leu Leu Lys Arg Arg Leu Arg Glu Ser Leu Gln 215

<210> 1640

<211> 436

<212> PRT

<213> Homo sapiens

<400> 1640

Gly Leu Lys Arg Val Ser Ala Thr Ala Ala His Arg Asn Ala Leu Gln

Asn Pro Lys Gln Gly Gly Thr Gln Leu Lys Thr Glu Lys Ile His Met

Phe Leu Leu Ala Pro Val Ala Thr Gly Ile Asn Ser His Asn Asp Arg 35

Gly Arg Gly Ile Gln Gly Thr Ile Asn Glu Gln Cys Ala Ser Ser Leu

Lys Ile Arg Ala Ser His Gly Thr Lys Met Met Thr Pro Glu Val Leu 70

Ala Glu Ala Tyr Gly Lys Lys Glu Trp Lys His Phe Leu Ser Asp Thr 85

Gly Met Ala Cys Arg Ser Gly Lys Tyr Tyr Phe Tyr Asp Asn Tyr Phe 100 105

Asp	Leu	Pro		Ala	Leu	Leu	Cys 120		Arg	۷al	Val	Asp 125		Leu	Thr
Lys	Leu 130		Asn	Gly	Gln	Lys 135		Phe	Asp	Phe	Trp		Asp	Ile	Val
Ala 145		Ile	Gln	His	Asn 150	Tyr	Lys	Met	Ser	Ala 155	Phe	Lys	Glu	Asn	Cys 160
Gly	Ile	Tyr	Phe	Pro 165	Glu	Ile	Lys	Arg	Asp 170		Gly	Arg	Tyr	Leu 175	His
Ser	Cys	Pro	Glu 180		Val	Lys	Lys	Trp 185	Leu	Arg	Gln	Leu	Lys 190	Asn	Ala
Gly	Lys	Ile 195	Leu	Leu	Leu	Ile	Thr 200	Ser	Ser	His	Ser	Asp 205	Tyr	Cys	Arg
Leu	Leu 210	Cys	Glu	Tyr	Ile	Leu 215	Gly	Asn	Asp	Phe	Thr 220	Asp	Leu	Phe	Asp
Ile 225	Val	Ile	Thr	Asn	Ala 230	Leu	Lys	Pro	Gly	Phe 235	Phe	Ser	His	Leu	Pro 240
ser	Gln	Arg	Pro	Phe 245	Arg	Thr	Leu	Glu	Asn 250	Asp	Glu	Glu	Gln	Glu 255	Ala
Leu	Pro	Ser	Leu 260	Asp	Lys	Pro	Gly	Trp 265	Tyr	Ser	Gln	Gly	Asn 270	Ala	Val
His	Leu	Tyr 275	Glu	Leu	Leu	Lys	Lys 280	Met	Thr	Gly	Lys	Pro 285	Glu	Pro	Lys
Val	Val 290	Tyr	Phe	Gly	Asp	Ser 295	Met	His	Ser	Asp	Ile 300	Phe	Pro	Ala	Arg
His 305	Tyr	Ser	Asn	Trp	Glu 310	Thr	Val	Leu	Ile	Leu 315	Glu	Glu	Leu	Arg	Gly 320
Asp	Glu	Gly	Thr	Arg 325	Ser	Gln	Arg	Pro	Glu 330	Glu	Ser	Glu	Pro	Leu 335	Glu
Lys	Lys	Gly	Lys 340	Tyr	Glu	Gly	Pro	Lys 345	Ala	Lys	Pro	Leu	Asn 350	Thr	Ser
Ser	Lys	Lys 355	Trp	Gly	Ser	Phe	Phe 360	Ile	Asp	Ser	Val	Leu 365	Gly	Leu	Glu
Asn	Thr 370	Glu	Asp	Ser	Leu	Val 375	Tyr	Thr	Trp	Ser	Cys 380	Lys	Arg	Ile	Ser

<213> Homo sapiens

<220>
<221> SITE
<222> (66)

<220>

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Thr Tyr Ser Thr Ile Ala Ile Pro Ser Ile Glu Ala Ile Ala Glu Leu
 385
 Pro Leu Asp Tyr Lys Phe Thr Arg Phe Ser Ser Ser Asn Ser Lys Thr
               405
                                   410
Ala Gly Tyr Tyr Pro Asn Pro Pro Leu Val Leu Ser Ser Asp Glu Thr
            420
                               425
                                                   430
Leu Ile Ser Lys
        435
<210> 1641
<211> 81
<212> PRT
<213> Homo sapiens
<400> 1641
Pro His Ser Leu Leu Phe Phe Leu Leu Gln Thr Leu Arg Gln Cys Ser
                 5
Asn Thr Ser Phe Thr His Pro Pro Asn Asn Ser Val His Ser Val Phe
             20
                                25
Phe Pro Leu Ser Gly Val Ser Ser Met Leu Val Arg Leu Gly Glu His
Leu Asp Leu Phe His Arg Lys Gly Cys Phe Gln Pro Val Ser Val Met
     50
                         55
                                            60
Leu Val Leu Leu Gln Gln Ser Lys Ser Lys Gly Phe Arg Ser Leu Phe
65
                     70
                                        75
Asp
<210> 1642
<211> 86
<212> PRT
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<223> Xaa equals any of the naturally occurring L-amino acids

<221> SITE <222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1642

Thr Glu Lys Lys Lys Lys Gly Gly Arg Ser Arg Gly Ser Lys Leu 1 5 10 15

Thr Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys 20 25 30

Phe Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro 35 40 45

Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser $50 \ \ 55 \ \ 60$

Trp Xaa Asn Ser Glu Glu Ala Arg Xaa Gly Ser Pro Phe Pro His Asn 65 70 75 80

Cys Ala Leu Glu Trp Ala 85

<210> 1643

<211> 118

<212> PRT

<213> Homo sapiens

<400> 1643

His Cys Val Glu Gly Thr Ser Leu Ser Leu Pro Cys Leu Thr Val Ser 1 5 10 15

Gly Ser Phe Ser Pro Cys Val Ser Trp Cys Ser Gln Pro His Gln Ser 20 25 30

Pro Cys Arg Glu Leu Thr Ala Phe Thr Leu Lys Ala Arg Val Thr Trp \$35\$

Val Val Arg His His Leu Ser Pro Cys Pro His Leu Leu Val Trp Gly 50 55 60

Phe Ser Gly Glu Leu Thr Ala Val Ser Thr Pro Leu Ser Pro His Pro 65 70 75 80

Pro Arg Pro Ala Trp Gly Thr His Phe Leu Leu Gly Gly Ala Ser Met

Val Arg Gly Pro Ala Ser Leu His Thr Ala Arg Thr Ala Leu His Arg

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Pro Thr Pro Tyr Asp Thr
       115
<210> 1644
<211> 52
 <212> PRT
 <213> Homo sapiens
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
Arg Leu Ser Glu Ser Leu Ser Val Ser Ser Leu Gln Xaa Arg Ser Xaa
Xaa Val Lys Pro Leu Thr Ala Val Met Ser Glu Val Ile Pro Arg Thr
             20
                                 25
Trp Glu Thr Ala Val His Gly Trp Ile Leu Leu Thr Ser Ala Glu Phe
                             40
Cys Gln Val Thr
     50
<210> 1645
<211> 346
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220> <221> SITE <222> (83) <223> Xaa e											
Pro Pro Ala 1	Ser Thr	Leu Pro	Trp	Asp	Leu 10	Met	Lys	Ser	Arg	Lys 15	Asn
Phe Lys Lys	Trp Pro 20	Leu Thr	Leu	Leu 25	Pro	Glu	Arg	Trp	Leu 30	Gln	Ile
Trp Gln Xaa		Arg Ser	Met 40	Cys .	Ala	Trp	Met	11e 45	Asp	Ser	Phe
Gly Asn Glu 50	Glu Gln	Arg His	Lys	Phe	Cys	Pro	Pro 60	Leu	Cys	Thr	Met
Glu Lys Phe 65	Ala Ser	Tyr Cys 70	Leu	Thr	Glu	Pro 75	Gly	ser	Gly	Ser	Asp 80
Ala Ala Xaa	Leu Leu 85	Thr Ser	Ala	Lys :	Lys 90	Gln	Gly	Asp	His	Tyr 95	Ile
Leu Asn Gly	Ser Lys 100	Ala Phe		Ser (Gly	Ala	Gly	Glu	Ser 110	Asp	Ile
Tyr Val Val	Met Cys	Arg Thr	Gly 120	Gly 1	Pro	Gly	Pro	Lys 125	Gly	Ile	Ser
Cys Ile Val 130	Val Glu	Lys Gly 135	Thr	Pro 0	Gly	Leu	Ser 140	Phe	Gly	Lys	Lys
Glu Lys Lys 145	Val Gly	Trp Asn 150	Ser	Gln I		Thr 155	Arg	Ala	Val	Ile	Phe 160
Glu Asp Cys	Ala Val 165	Pro Val	Ala		Arg 170	Ile	Gly	Ser	Glu	Gly 175	Gln
Gly Phe Leu	Ile Ala 180	Val Arg		Leu <i>I</i> 185	Asn	Gly	Gly	Arg	Ile 190	Asn	Ile
Ala Ser Cys 195	Ser Leu	Gly Ala	Ala i 200	His A	Ala :	Ser		11e 205	Leu	Thr	Arg
Asp His Leu 210	Asn Val	Arg Lys 215	Gln 1	Phe C	Sly		Pro 220	Leu	Ala	Ser	Asn
Gln Tyr Leu 225		Thr Leu 230	Ala /	Asp M		Ala 235	Thr	Arg	Leu		Ala 240

Ala Arg Leu Met Val Arg Asn Ala Ala Val Ala Leu Gln Glu Glu Arg 245 250 255

Lys Asp Ala Val Ala Leu Cys Ser Met Ala Lys Leu Phe Ala Thr Asp \$260\$

Glu Cys Phe Ala Ile Cys Asn Gln Ala Leu Gln Met His Gly Gly Tyr 275 280 285

Gly Tyr Leu Lys Asp Tyr Ala Val Gln Gln Tyr Val Arg Asp Ser Arg 290 295 300

Val His Gln Ile Leu Glu Glu Leu Phe Trp Gln Gly Pro Gly Val Gln 305 \$310\$

Ser Arg Ser Phe Ala Leu Phe Gly Gly Pro Gln Ile Pro Leu Leu Leu 325 330 335

Pro Phe Ser Ser Gly Asp Leu Arg Glu Gly

<210> 1646 <211> 201

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1646

Cys Asn Leu Ala Lys Xaa Val Ile Ser Ile Ser Phe Leu Lys Glu Glu 1 10 15

Glu Glu Glu Asp Glu Glu Glu Ile Asp Val Val Ser Val Glu Lys Arg \$20\$

Gln Ala Pro Gly Lys Arg Ser Glu Ser Gly Ser Pro Ser Ala Gly Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

His Ser Lys Pro Pro His Ser Pro Leu Val Leu Lys Arg Cys His Val 50 55 60

Ser Thr His Gln His Asn Tyr Ala Ala Pro Pro Ser Thr Arg Lys Asp 65 70 75 80

Tyr Pro Ala Ala Lys Arg Val Lys Leu Asp Ser Val Arg Val Leu Arg 85 90 95 Gln Ile Ser Asn Asn Arg Lys Cys Thr Ser Pro Arg Ser Ser Asp Thr

Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg Gln Arg 115 120 125

Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln Ile Pro 130 135 140

Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu Lys Lys 145 \$150\$

Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Glu Gln Lys Leu Ile 165 170 175

Ser Glu Glu Asp Leu Leu Arg Lys Arg Arg Glu Gln Leu Lys His Lys 180 185 190

Leu Glu Gln Leu Arg Asn Ser Cys Ala 195 200

<210> 1647 <211> 84

<211> 84

<212> PRT

<213> Homo sapiens

<400> 1647

Ser Ile Tyr Asp Ser Ser Lys Lys Asn His Leu Leu Tyr Ala Gly Asp $1 \hspace{1.5cm} 1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Met Phe Arg Asp Leu Ser Glu Lys Leu Ala Trp Phe Glu Gly Thr Gln
20 25 30

Tyr His Phe Asn Leu Leu Lys Ile Ser Val Phe Leu Leu Phe Phe Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Leu Leu Tyr Leu Phe Asn Val His Ile Leu Lys Lys Ser Ser Leu 65 70 75 80

Tyr Glu Leu Phe

1492

20

```
<211> 60
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
Leu Lys Ile Asn Tyr Ile Lys Ile Ser Phe Phe Val Leu Val Phe Phe
                  5
                                     10
Leu Xaa Thr Leu Cys Phe Lys Tyr Lys Xaa Lys Tyr Xaa Ile Tyr Phe
Cys Val Leu Pro Ser Glu Leu Lys Phe Pro Met Xaa Leu Thr Glu Leu
         35
                            40
Gly Leu Ala Leu Gly Glu Glu Trp Thr Ala Ala Gly
     50
                        55
<210> 1649
<211> 390
<212> PRT
<213> Homo sapiens
<400> 1649
Ala Arg Gly Glu Cys Cys Arg Gly Gly Leu Trp Glu Lys Met Ala Ala
Ala Ala Gln Ser Arg Val Val Arg Val Leu Ser Met Ser Arg Ser Ala
```

25

Ile Thr Ala Ile Ala Thr Ser Val Cys His Gly Pro Pro Cys Arg Gln

Ile Pro Gln Ala Ile Ala Gln Leu Ser Lys Glu Ala Gly Val Glu Lys 165 170 175

Phe Ile His Val Ser His Leu Asn Ala Asn Ile Lys Ser Ser Ser Arg 180 185 190

Tyr Leu Arg Asn Lys Ala Val Glu Lys Val Val Arg Asp Ala Phe
195 200 205

Pro Glu Ala Ile Ile Val Lys Pro Ser Asp Ile Phe Gly Arg Glu Asp 210 215 220

Arg Phe Leu Asn Ser Phe Ala Ser Met His Arg Phe Gly Pro Ile Pro 225 230 235

Leu Gly Ser Leu Gly Trp Lys Thr Val Lys Gln Pro Val Tyr Val Val 245 250 255

Asp Val Ser Lys Gly Ile Val Asn Ala Val Lys Asp Pro Asp Ala Asn $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

Gly Lys Ser Phe Ala Phe Val Gly Pro Ser Arg Tyr Leu Leu Phe His \$275\$

Leu Val Lys Tyr Ile Phe Ala Val Ala His Arg Leu Phe Leu Pro Phe 290 295 300

```
Pro Leu Pro Leu Phe Ala Tyr Arg Trp Val Ala Arg Val Phe Glu Ile
305
                     310
                                         315
Ser Pro Phe Glu Pro Trp Ile Thr Arg Asp Lys Val Glu Arg Met His
                 325
                                    330
Ile Thr Asp Met Lys Leu Pro His Leu Pro Gly Leu Glu Asp Leu Gly
            340
                                345
                                                    350
Ile Gln Ala Thr Pro Leu Glu Leu Lys Ala Ile Glu Val Leu Arg Arg
         355
                            360
His Arg Thr Tyr Arg Trp Leu Ser Ala Glu Ile Glu Asp Val Lys Pro
                        375
Ala Lys Thr Val Asn Ile
385
                    390
<210> 1650
<211> 99
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1650
Gly Ser Met Gly Gln Ala Gln Ser Lys Pro Thr Pro Pro Gly Thr Met
Leu Lys Asn Phe Lys Lys Gly Phe Xaa Gly Asp Tyr Gly Val Thr Met
             20
                                 25
```

35 Glu Val Gly Trp Pro Ser Glu Gly Ser Xaa Asp Arg Ser Leu Val Ser 5.5 Lys Val Trp His Lys Val Thr Cys Lys Pro Gly Cys Pro Asp Gln Phe 75 Xaa Tyr Ile Asp Thr Trp Leu Gln Leu Val Leu Xaa Pro Ser Tyr Pro 90 His Gly Gly <210> 1651 <211> 153 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (86) <223> Xaa equals any of the naturally occurring L-amino acids Ala Gly Thr Gly Gly Arg Arg Trp Gly Asn Arg Gly Ser Val Arg Leu

Thr Pro Gly Lys Leu Arg Thr Leu Cys Glu Ile Asp Trp Pro Ala Leu

Thr Ala Arg Arg Pro Arg Ser Glu Leu Pro Gly Gln Pro Pro Phe Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Val Arg Gly Ser Asp Trp Ala Glu Gln Ala Ser His Arg Arg Val

25

20

Trp Arg Trp Glu Arg Met Trp Ala Trp Gly Trp Gly Gly Ala Lys Leu
50 60

Arg Gly Arg Ala Ala Asp Thr Leu Lys Leu Arg Ala Gly Arg Ala Gln
65 70 75 80

Arg Lys Gly Arg Arg Xaa His Gly Tyr Pro Ser Val Arg Gly Ser Ser 85 90 95

Ser Phe Phe Trp Arg Ala Gln Gly Ala Ala Gly Val Met Ser Pro Trp \$100\$ \$105\$ \$110\$

Val Leu Ala Pro Thr Ala Lys Phe Ala Trp Pro Gly Pro Pro Ser Arg

115 120 125

Gly Leu Thr Arg His Thr Asp Gln Asn Pro Glu Gln Ala Val Leu Ser 130 135 140

Ile Leu Arg Leu Leu Arg Leu Pro Arg

145 150

<210> 1652

<211> 312

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (289)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1652

Thr Phe Ile Trp Leu Ile Leu Ile Met Asn Arg Ala Phe Ser Arg Lys

Lys Asp Lys Thr Trp Met His Thr Pro Glu Ala Leu Ser Lys His Phe

Ile Pro Tyr Asn Ala Lys Phe Leu Gly Ser Thr Glu Val Glu Gln Pro

Lys Gly Thr Glu Val Val Arg Asp Ala Val Arg Lys Leu Lys Phe Ala 50 55 60

Arg His Ile Lys Lys Ser Glu Gly Gln Lys Ile Pro Lys Val Glu Leu 65 70 75 80

Gln Ile Ser Ile Tyr Gly Val Lys Ile Leu Glu Pro Lys Thr Lys Glu 85 90 95

Val Gln His Asn Cys Gln Leu His Arg Ile Ser Phe Cys Ala Asp Asp 100 105 110

Lys Thr Asp Lys Arg Ile Phe Thr Phe Ile Cys Lys Asp Ser Glu Ser 115 120 125

Asn Lys His Leu Cys Tyr Val Phe Asp Ser Glu Lys Cys Ala Glu Glu 130 135 140

Ile Thr Leu Thr Ile Gly Gln Ala Phe Asp Leu Ala Tyr Arg Lys Phe 145 150 155 160

Leu Glu Ser Gly Gly Lys Asp Val Glu Thr Arg Lys Gln Ile Ala Gly
165 170 175

Leu Gln Lys Arg Ile Gln Asp Leu Glu Thr Glu Asn Met Glu Leu Lys \$180\$

Asn Lys Val Gln Asp Leu Glu Asn Gln Leu Arg Ile Thr Gln Val Ser 195 200 205

Ala Pro Pro Ala Gly Ser Met Thr Pro Lys Ser Pro Ser Thr Asp Ile \$210\$

Phe Asp Met Ile Pro Phe Ser Pro Ile Ser His Gln Ser Ser Met Pro 225 230 235

Thr Arg Asn Gly Thr Gln Pro Pro Pro Val Pro Ser Arg Ser Thr Glu 245 250 255

Ile Lys Arg Asp Leu Phe Gly Ala Glu Pro Phe Asp Pro Phe Asn Cys \$260\$

Gly Ala Ala Asp Phe Pro Pro Asp Ile Gln Ser Lys Leu Asp Glu Met 275 280 285

Xaa Glu Gly Phe Lys Met Gly Leu Thr Leu Glu Gly Thr Val Phe Cys 290 295 300

Leu Asp Pro Leu Asp Ser Arg Cys 305 310

<210> 1653

<211> 50

<212> PRT

<213> Homo sapiens

<400> 1653

Tyr Gly Leu Gly Lys Lys Thr Lys Gln Ala Ser Cys Cys Leu Phe Tyr 1 5 10 15

Ser Asn Ile Leu Leu His Met Ile Asp Ile Phe Val Val Gly Lys Trp \$20\$

Asp Ala Pro Gln Ile Leu Lys Val Leu Ala Asp Cys Ile Leu Ser Leu $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Lys Ile

50

<220>
<221> SITE
<222> (325)

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<210> 1654
 <211> 117
 <212> PRT
<213> Homo sapiens
<400> 1654
 Tyr Lys Asn Asp Arg Ser Ser Tyr Glu Arg His Ala Asn Glu Thr Pro
Ser Ser Gly Glu Ala Leu Glu Ser Glu Leu Ser Phe Phe Leu Met Ser
Ser Asp Ala Ala Ser Phe Leu Ile Phe Leu Lys Thr Val Cys Phe Cys
                             40
                                                  45
Gly Met Tyr Ile Cys Thr Pro Asn Tyr Leu Ala Leu Gly Asn His Ser
Thr Thr Gln Arg Gln Leu Asn Lys Glu Lys Phe Asn Phe Lys Tyr Gln
Val Leu Ser Asn Ile Ser Gln Thr Ser Asp Phe Ile Lys Gly Leu Pro
                 85
                                     90
Ala Asn Lys Val His Pro Lys Tyr Thr Gly Glu Lys Ala Arg Leu Leu
            100
                                105
Gln Gly Pro Arg Val
        115
<210> 1655
<211> 373
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (290)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (328) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1655 Val Met Ser Thr Ala Ala Leu Ile Thr Leu Val Arg Ser Gly Gly Asn Gln Val Arg Arg Arg Val Leu Leu Ser Ser Arg Leu Leu Gln Asp Asp Arg Arg Val Thr Pro Thr Cys His Ser Ser Thr Ser Glu Pro Arg Cys 40 Ser Arg Phe Asp Pro Asp Gly Ser Gly Ser Pro Ala Thr Trp Asp Asn 55 Phe Gly Ile Trp Asp Asn Arg Ile Asp Glu Pro Ile Leu Leu Pro Pro 65 7.0 Ser Ile Lys Tyr Gly Lys Pro Ile Pro Lys Ile Ser Leu Glu Asn Val Gly Cys Ala Ser Gln Ile Gly Lys Arg Lys Glu Asn Glu Asp Arg Phe 105 Asp Phe Ala Gln Leu Thr Asp Glu Val Leu Tyr Phe Ala Val Tyr Asp 115 125 Gly His Gly Gly Pro Ala Ala Ala Asp Phe Cys His Thr His Met Xaa 135 Lys Cys Ile Met Asp Leu Leu Pro Lys Glu Lys Asn Leu Glu Thr Leu Leu Thr Leu Ala Phe Leu Glu Ile Asp Lys Ala Phe Ser Ser His Ala 165 170 175 Arg Leu Ser Ala Asp Ala Thr Leu Leu Thr Ser Gly Thr Thr Ala Thr 180 Val Ala Leu Leu Arg Asp Gly Ile Glu Leu Val Val Ala Ser Val Gly 200

Asp Ser Arg Ala Ile Leu Cys Arg Lys Gly Lys Pro Met Lys Leu Thr

Ile Asp His Thr Pro Glu Arg Lys Asp Glu Lys Glu Arg Ile Lys Lys

215

210

225		230		235			240
Cys Gly Gly	Phe Val . 245	Ala Trp	Asn Ser	Leu Gly 250	Gln Pro	His Val 255	Asn
Gly Arg Leu	Ala Met 9 260	Thr Arg	Ser Ile 265	Gly Asp	Leu Asp	Leu Lys 270	Thr
Ser Gly Val 275	Ile Ala		Glu Thr 280	Lys Arg	Ile Lys 285	Leu His	His
Ala Xaa Asp 290	Ser Phe 1	Leu Val 295	Leu Thr	Thr Asp	Gly Ile 300	Asn Phe	Met
Val Asn Ser 305		Ile Cys 310	Asp Phe	Val Asn 315	Gln Cys	His Asp	Pro 320
Asn Glu Ala	Ala Xaa A 325	Ala Val	Xaa Glu	Gln Ala 330	Ile Gln	Tyr Gly 335	Thr
Glu Asp Asn	Ser Thr 3	Ala Val	Val Val 345	Pro Phe	Gly Ala	Trp Gly 350	Lys
Tyr Lys Asn 355	Ser Glu 1		Phe Ser 360	Phe Ser	Arg Ser 365	Phe Ala	Ser
Ser Gly Arg 370	Trp Ala						
<210> 1656 <211> 82 <212> PRT							
<213> Homo s	apiens						
<400> 1656 Arg Pro Thr 1		ro Gly i	Arg Thr		Arg Leu		Cys
Gly Leu Ala	5 Gly Ser A	la Val S	Ser Gln	10 Arg Glu	Gln Thr	15 Ser Pro	Ser
	20		25			30	
Pro Ser Gly 35	Gln Leu A	rg Glu I	Lys Asn 40	Phe Arg	Glu Phe 45	Pro Ala	Gly
Lys Ala Val . 50	Ala Ala L	eu Thr 1	Ala Cys	Phe Gly	Asp Pro 60	Arg Arg	Arg
Arg Arg His		eu Pro 1	thr Lys	Lys Ala 75	Pro Pro	Pro Ser	Ser 80

Val Ser

<210> 1657 <211> 273

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1657

Val Ala Arg Ser Ser Ser Glu Leu Pro Arg Arg Leu Val Cys Ser Lys 1 5 10 15

Leu Arg Ala Asp Pro Gly Arg Leu Thr Pro Asp Ala Cys Xaa Arg Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Met Ser Arg Tyr Leu Leu Pro Leu Ser Ala Leu Gly Thr Val Ala \$35\$ \$40\$ \$45\$

Gly Ala Ala Val Leu Leu Lys Asp Tyr Val Thr Gly Gly Ala Cys Pro $50 \\ 95 \\ 60$

Ser Lys Ala Thr Ile Pro Gly Lys Thr Val Ile Val Thr Gly Ala Asn 65 70 75 80

Thr Gly Ile Gly Lys Gln Thr Ala Leu Glu Leu Ala Arg Arg Gly Gly 85 90 95

Asn Ile Ile Leu Ala Cys Arg Asp Met Glu Lys Cys Glu Ala Ala Ala 100 \$105\$ 110

Lys Asp Ile Arg Gly Glu Thr Leu Asn His His Val Asn Ala Arg His li5 \$120\$ \$125\$

Leu Asp Leu Ala Ser Leu Lys Ser Ile Arg Glu Phe Ala Ala Lys Ile 130 135 140

Ile Glu Glu Glu Glu Arg Val Asp Ile Leu Ile Asn Asn Ala Gly Val 145 150 155 160

Met Arg Cys Pro His Trp Thr Thr Glu Asp Gly Phe Glu Met Gln Phe 165 170 175

Gly Val Asn His Leu Gly His Phe Leu Leu Thr Asn Leu Leu Leu Asp

180 185 190

Lys Leu Lys Ala Ser Ala Pro Ser Arg Ile Ile Asn Leu Ser Ser Leu 195 200 205

Ala His Val Ala Gly His Ile Asp Phe Asp Asp Leu Asn Trp Gln Thr 210 215 220

Arg Lys Tyr Asn Thr Lys Ala Ala Tyr Cys Gln Ser Lys Leu Ala Ile

Val Leu Phe Thr Lys Glu Leu Ser Arg Arg Leu Gln Gly Thr Gly Ala 245 250 255

Leu Gly Ser Ala Ser Leu Leu Tyr Ser Glu Pro Arg Ala Ala Phe 260 265 270

Pro

<210> 1658

<211> 240

<212> PRT

<213> Homo sapiens

<400> 1658

Tyr Leu Cys Ile Leu Gln Ala Ser Lys Leu Glu Asp Leu Arg Val Lys 1 5 10 15

Leu Lys Lys Glu Gly Tyr Ser Asn Ile Ser Tyr Ile Val Val Asn His 20 25 30

Gln Gly Ile Ser Ser Arg Leu Lys Tyr Thr His Leu Lys Asn Lys Val

Ser Glu His Ile Pro Val Tyr Gln Gln Glu Glu Asn Gln Thr Asp Val 50 55 60

Trp Thr Leu Leu Asn Gly Ser Lys Asp Asp Phe Leu Ile Tyr Asp Arg 65 70 75 80

Cys Gly Arg Leu Val Tyr His Leu Gly Leu Pro Phe Ser Phe Leu Thr $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95 \hspace{1.5cm}$

Phe Pro Tyr Val Glu Glu Ala Ile Lys Ile Ala Tyr Cys Glu Lys Lys 100 105 110

Cys Gly Asn Cys Ser Leu Thr Thr Leu Lys Asp Glu Asp Phe Cys Lys 115 120 125 Arg Val Ser Leu Ala Thr Val Asp Lys Thr Val Glu Thr Pro Ser Pro 130 135 140

His Tyr His His Glu His His His Asn His Gly His Gln His Leu Gly 145 150 150 160

Ser Ser Glu Leu Ser Glu Asn Gln Gln Pro Gly Ala Pro Asn Ala Pro 165 170 175

Thr His Pro Ala Pro Pro Gly Leu His His His His Lys His Lys Gly
180 185 190

Gln His Arg Gln Gly His Pro Glu Asn Arg Asp Met Pro Ala Ser Glu 195 200 205

Asp Leu Gln Asp Leu Gln Lys Lys Leu Cys Arg Lys Arg Cys Ile Asn $210 \ \ 215 \ \ 220$

Gln Leu Leu Cys Lys Leu Pro Thr Asp Ser Glu Leu Ala Pro Arg Ser 225 230235235

<210> 1659

<211> 221

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1659

Xaa Thr Arg Gly Tyr Gly Cys Glu Lys Thr Thr Glu Gly Gly Ser Gln 1 5 10 15

Gly Pro Leu Pro Ala Leu Ala Ala Gly Ser Thr Phe Pro Val Leu Ala 20 25 30

Cys Ser Ser Ala Met Ala Pro Lys Gly Ser Ser Lys Gln Gln Ser Glu 35 40 45

Glu Asp Leu Leu Gln Asp Phe Ser Arg Asn Leu Ser Ala Lys Ser 50 60

Ser Ala Leu Phe Phe Gly Asn Ala Phe Ile Val Ser Ala Ile Pro Ile

65 70 75 80 Trp Leu Tyr Trp Arg Ile Trp His Met Asp Leu Ile Gln Ser Ala Val 85 90 Leu Tyr Ser Val Met Thr Leu Val Ser Thr Tyr Leu Val Ala Phe Ala 105 Tyr Lys Asn Val Lys Phe Val Leu Lys His Lys Val Ala Gln Lys Arg 115 120 Glu Asp Ala Val Ser Lys Glu Val Thr Arg Lys Leu Ser Glu Ala Asp 135 Asn Arg Lys Met Ser Arg Lys Glu Lys Asp Glu Arg Ile Leu Trp Lys 145 150 155 Lys Asn Glu Val Ala Asp Tyr Glu Ala Thr Thr Phe Ser Ile Phe Tyr 170 Asn Asn Thr Leu Phe Leu Val Val Val Ile Val Ala Ser Phe Phe Ile 180 185 190 Leu Lys Asn Phe Asn Pro Thr Val Asn Tyr Ile Leu Ser Ile Ser Ala 200 Ser Ser Gly Leu Ile Ala Leu Leu Ser Thr Gly Ser Lys 210 215 <210> 1660 <211> 421 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (140) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (164) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (167)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (321) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (383) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (403) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1660 Glu Leu Gly Ala Gly Gly Asp Gly His Arg Gly Gly Asp Gly Ala Val Arg Ser Glu Thr Ala Pro Asp Ser Tyr Lys Val Gln Asp Lys Lys Asn Ala Ser Ser Arg Pro Ala Ser Ala Ile Ser Gly Gln Asn Asn Asn His 35 40 Ser Gly Asn Lys Pro Asp Pro Pro Pro Val Leu Arg Val Asp Asp Arg Gln Arg Leu Ala Arg Glu Arg Glu Glu Arg Glu Lys Gln Leu Ala Ala Arg Glu Ile Val Trp Leu Glu Arg Glu Glu Arg Ala Arg Gln His 85 Tyr Glu Lys His Leu Glu Glu Arg Lys Lys Arg Leu Glu Glu Gln Arg 100 105 Gln Lys Glu Glu Arg Arg Arg Ala Ala Val Glu Glu Lys Arg Arg Gln Arg Leu Glu Glu Asp Lys Glu Arg His Glu Ala Xaa Val Arg Arg Thr 130 135 Met Glu Arg Ser Gln Lys Pro Lys Gln Lys His Asn Arg Trp Ser Trp 145 150 Gly Gly Ser Kaa His Gly Kaa Pro Ser Ile His Ser Ala Ala Arg Arg 165 170 Leu Gln Leu Ser Pro Trp Glu Ser Ser Val Val Asn Arg Leu Leu Thr 185 190

200 Gly Glu Ala Ala Ser Cys Ser Pro Ile Ile Met Pro Tyr Lys Ala Ala 210 215 His Ser Arg Asn Ser Met Asp Arg Pro Lys Leu Phe Val Thr Pro Pro 235 Glu Gly Ser Ser Arg Arg Ile Ile His Gly Thr Ala Ser Tyr Lys 245 250 Lys Glu Arg Glu Arg Glu Asn Val Leu Phe Leu Thr Ser Gly Thr Arg 265 Arg Ala Val Ser Pro Ser Asn Pro Lys Ala Arg Gln Pro Ala Arg Ser 280 Arg Leu Trp Leu Pro Ser Lys Ser Leu Pro His Leu Pro Gly Thr Pro 295 Arg Pro Thr Ser Ser Leu Pro Pro Gly Ser Val Lys Ala Ala Pro Ala 305 310 315 Xaa Val Arg Pro Pro Ser Pro Gly Asn Ile Arg Pro Val Lys Arg Glu

Pro Thr His Ser Phe Leu Ala Arg Ser Lys Ser Thr Ala Ala Leu Ser

Val Lys Val Glu Pro Glu Lys Lys Asp Pro Glu Lys Glu Pro Gln Lys 340 345 350

325

Val Ala Asn Glu Pro Ser Leu Lys Gly Arg Ala Pro Leu Val Lys Val 355 360 365

Glu Glu Ala Thr Val Glu Glu Arg Thr Pro Ala Glu Pro Glu Xaa Gly 370 \$375\$

Leu Leu Leu Gln Pro Trp Pro Gln Leu Gln Pro Arg Pro Gln Leu Gln 385 390 395 400

Pro Arg Xaa Gln Leu Gln Pro Arg Ser Pro Pro Gln Pro Trp Ser Gln 405 \$410\$

Pro Arg His Pro Leu 420

<210> 1661 <211> 468

<211> 468 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1661 Arg Xaa Thr Thr Ser Gly Thr Leu Asp Phe Asp Glu Val Val Asn Asp 10 Ala Asp Ile Ile Leu Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Lys Lys Leu Ala Pro Glu Tyr Glu Lys Ala Ala Lys Glu Leu Ser Lys Arg Ser Pro Pro Ile Pro Leu Ala Lys Val Asp Ala Thr Ala Glu Thr Asp Leu Ala Lys Arg Phe Asp Val Ser Gly Tyr Pro Thr Leu Lys Ile 65 70 Phe Arg Lys Gly Arg Pro Tyr Asp Tyr Asn Gly Pro Arg Glu Lys Tyr Gly Ile Val Asp Tyr Met Ile Glu Gln Ser Gly Pro Pro Ser Lys Glu Ile Leu Thr Leu Lys Gln Val Gln Glu Phe Leu Lys Asp Gly Asp Asp 115 120 125 Val Ile Ile Gly Val Phe Lys Gly Glu Ser Asp Pro Ala Tyr Gln Gln Tyr Gln Asp Ala Ala Asn Asn Leu Arg Glu Asp Tyr Lys Phe His 150 His Thr Phe Ser Thr Glu Ile Ala Lys Phe Leu Lys Val Ser Gln Gly 165 170 Gln Leu Val Val Met Gln Pro Glu Lys Phe Gln Ser Lys Tyr Glu Pro 180 185 Arg Ser His Met Met Asp Val Gln Gly Ser Thr Gln Asp Ser Ala Ile

Lys Asp Phe Val Leu Lys Tyr Ala Leu Pro Leu Val Gly His Arg Lys

Val Ser Asn Asp Ala Lys Arg Tyr Thr Arg Arg Pro Leu Val Val Val

215

210

225 230 235 240 Tyr Tyr Ser Val Asp Phe Ser Phe Asp Tyr Arg Ala Ala Thr Gln Phe 245 250 Trp Arg Ser Lys Val Leu Glu Val Ala Lys Asp Phe Pro Glu Tyr Thr 265 Phe Ala Ile Ala Asp Glu Glu Asp Tyr Ala Gly Glu Val Lys Asp Leu 280 Gly Leu Ser Glu Ser Gly Glu Asp Val Asn Ala Ala Ile Leu Asp Glu 295 Ser Gly Lys Lys Phe Ala Met Glu Pro Glu Glu Phe Asp Ser Asp Thr 310 315 Leu Arg Glu Phe Val Thr Ala Phe Lys Lys Gly Lys Leu Lys Pro Val Ile Lys Ser Gln Pro Val Pro Lys Asn Asn Lys Gly Pro Val Lys Val 340 Val Val Gly Lys Thr Phe Asp Ser Ile Val Met Asp Pro Lys Lys Asp 360 Val Leu Ile Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Lys Gln Leu 375 Glu Pro Val Tyr Asn Ser Leu Ala Lys Lys Tyr Lys Gly Gln Lys Gly 390 395 Leu Val Ile Ala Lys Met Asp Ala Thr Ala Asn Asp Val Pro Ser Asp 405 410 Arg Tyr Lys Val Glu Gly Phe Pro Thr Ile Tyr Phe Ala Pro Ser Gly 425 Asp Lys Lys Asn Pro Val Lys Phe Glu Gly Gly Asp Arg Asp Leu Glu 435 440 His Leu Ser Lys Phe Ile Glu Glu His Ala Thr Lys Leu Ser Arg Thr 450 455 460 Lys Glu Glu Leu 465

<210> 1662 <211> 355

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (262)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1662
Ala Ala Gly Ile Arg Xaa Arg Arg Gly Gly Cys Lys Met Pro Leu Pro
Val Gln Val Phe Asn Leu Gln Gly Ala Val Glu Pro Met Gln Ile Asp
                                25
Val Asp Pro Gln Glu Asp Pro Gln Asn Ala Pro Asp Val Asn Tyr Val
         35
                            40
Val Glu Asn Pro Ser Leu Asp Leu Glu Gln Tyr Ala Ala Ser Tyr Ser
Gly Leu Met Arg Ile Glu Arg Leu Gln Phe Ile Ala Asp His Cys Pro
                    7.0
                                        75
Thr Leu Arg Val Glu Ala Leu Lys Met Ala Leu Ser Phe Val Gln Arg
                85
Thr Phe Asn Val Asp Met Tyr Glu Glu Ile His Arg Lys Leu Ser Glu
            100
                                105
Ala Thr Arg Glu Leu Gln Asn Ala Pro Asp Ala Ile Pro Glu Ser Gly
Val Glu Pro Pro Ala Leu Asp Thr Ala Trp Val Glu Ala Thr Arg Lys
    130
                        135
                                            140
Lys Ala Leu Leu Lys Leu Glu Lys Leu Asp Thr Asp Leu Lys Asn Tyr
145
                   150
Lys Gly Asn Ser Ile Lys Glu Ser Ile Arg Arg Gly His Asp Asp Leu
                                   170
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Gly Asp His Tyr Leu Asp Cys Gly Asp Leu Ser Asn Ala Leu Lys Cys

185 Tyr Ser Arg Ala Arg Asp Tyr Cys Thr Ser Ala Lys His Val Ile Asn

180

195 200 205

Met Cys Leu Asn Val Ile Lys Val Ser Val Tyr Leu Gln Asn Trp Ser 210 215 220

His Val Leu Ser Tyr Val Ser Lys Ala Glu Ser Thr Pro Glu Ile Ala 225 230 235 240

Glu Gln Arg Gly Glu Arg Asp Ser Gln Thr Gln Ala Ile Leu Thr Lys \$245\$

Leu Lys Cys Ala Ala Xaa Trp Gln Ser Trp Pro Pro Gly Ser Thr Ser 260 265 270

Arg Leu Pro Ser Ala Ser Cys Trp Leu Pro Leu Ile Thr Val Thr Ser $275 \\ 280 \\ 285$

Leu Ser Cys Cys Pro Pro Ala Thr Trp Pro Ser Thr Val Ala Cys Ala 290 295 300

Pro Trp Leu Pro Leu Thr Gly Arg Ser Cys Ser Ala Met Ser Ser Pro 305 \$310\$

Ala Ala Pro Ser Ser Cys Ser Trp Ser Trp Ser His Arg Ser Glu Thr \$325\$ \$330\$ \$335\$

Ser Ser Ser Asn Ser Thr Ser Pro Ser Thr Pro His Val Ser Arg Cys 340 345 350

Trp Thr Arg 355

<210> 1663

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1663

Leu Ser His Leu Ser Leu Leu Asn Ser Trp Asp Tyr Arg Cys Met Leu 1 5 10 15

Pro Cys Leu Ala Thr Phe Cys Val Phe Ser Arg Asp Arg Val Ser Pro 20 25 30

Cys Trp Ser Gly Trp Ser Arg Thr Pro Asp Leu Lys Trp Ser Val Trp 35 40 45

Leu Gly Leu Pro Arg Cys Trp Asp Tyr Arg Cys Glu Pro Leu His Leu
50 55 60

Ala Tyr Ile Gly Phe Phe Leu Lys Pro Ile 65 70

<210> 1664

<211> 485 <212> PRT

<213> Homo sapiens

<400> 1664

Pro Gly Ser Ile Leu Arg Glu Thr Gly Leu Gly Cys Asp Ala Ala Ala 1 $$ 5 $$ 10 $$ 15

Gly Val Arg Met Ser Tyr Pro Gly Tyr Pro Pro Thr Gly Tyr Pro Pro 20 25 30

Phe Pro Gly Tyr Pro Pro Ala Gly Gln Glu Ser Ser Phe Pro Pro Ser 35 40 45

Gly Gln Tyr Pro Tyr Pro Ser Gly Phe Pro Pro Met Gly Gly Gly Ala 50

Tyr Pro Gln Val Pro Ser Ser Gly Tyr Pro Gly Ala Gly Gly Tyr Pro 65 70 75 80

Ala Pro Gly Gly Tyr Pro Ala Pro Gly Gly Tyr Pro Gly Ala Pro Gln \$85\$ 90 95

Pro Gly Gly Ala Pro Ser Tyr Pro Gly Val Pro Pro Gly Gln Gly Phe 100 105 110

Gly Val Pro Pro Gly Gly Ala Gly Phe Ser Gly Tyr Pro Gln Pro Pro 115 \$120\$

Ser Gln Ser Tyr Gly Gly Gly Pro Ala Gln Val Pro Leu Pro Gly Gly 130 \$135\$

Phe Pro Gly Gly Gln Met Pro Ser Gln Tyr Pro Gly Gly Gln Pro Thr 145 150 155 160

Tyr Pro Ser Gln Pro Ala Thr Val Thr Gln Val Thr Gln Gly Thr Ile 165 170 175

Arg Pro Ala Ala Asn Phe Asp Ala Ile Arg Asp Ala Glu Ile Leu Arg $180 \hspace{1cm} 185 \hspace{1cm} 190$

Lys Ala Met Lys Gly Phe Gly Thr Asp Glu Gln Ala Ile Val Asp Val 195 200 205

Val	Ala 210	Asn	Arg	Ser	Asn	Asp 215		Arg	Gln	Lys	Ile 220		Ala	Ala	Phe
Lys 225	Thr	Ser	Tyr	Gly	Lys 230	Asp	Leu	Ile	Lys	Asp 235	Leu	Lys	Ser	Glu	Leu 240
Ser	Gly	Asn	Met	G1u 245	Glu	Leu	Ile	Leu	Ala 250	Leu	Phe	Met	Pro	Pro 255	Thr
Tyr	Tyr	Asp	Ala 260	Trp	Ser	Leu	Arg	Lys 265		Met	Gln	Gly	Ala 270	Gly	Thr
Gln	Glu	Arg 275	Val	Leu	Ile	Glu	Ile 280	Leu	Cys	Thr	Arg	Thr 285	Asn	Gln	Glu
Ile	Arg 290	Glu	Ile	Val	Arg	Cys 295	Tyr	Gln	Ser	Glu	Phe 300	Gly	Arg	Asp	Leu
G1u 305	Lys	Asp	Ile	Arg	Ser 310	Asp	Thr	Ser	Gly	His 315	Phe	Glu	Arg	Leu	Leu 320
Val	Ser	Met	Суз	Gln 325	Gly	Asn	Arg	Asp	Glu 330	Asn	Gln	ser	Ile	Asn 335	His
Gln	Met	Ala	Gln 340	Glu	Asp	Ala	Gln	Arg 345	Leu	Tyr	Gln	Ala	Gly 350	Glu	Gly
Arg	Leu	Gly 355	Thr	Asp	Glu	Ser	Cys 360	Phe	Asn	Met	Ile	Leu 365	Ala	Thr	Arg
Ser	Phe 370	Pro	Gln	Leu	Arg	Ala 375	Thr	Met	Glu	Ala	Tyr 380	Ser	Arg	Met	Ala
Asn 385	Arg	Asp	Leu	Leu	Ser 390	Ser	Val	Ser	Arg	Glu 395	Phe	Ser	Gly	Tyr	Val 400
Glu	Ser	Gly	Leu	Lys 405	Thr	Ile	Leu	Gln	Cys 410	Ala	Leu	Asn	Arg	Pro 415	Ala
Phe	Phe	Ala	Glu 420	Arg	Leu	Tyr	Tyr	Ala 425	Met	Lys	Gly	Ala	Gly 430	Thr	Asp
Asp		Thr 435	Leu	Val	Arg	Ile	Val 440	Val	Thr	Arg	Ser	Glu 445	Ile	Asp	Leu
	Gln 450	Ile	Lys	Gln		Phe 455	Ala	Gln	Met	Tyr	Gln 460	Lys	Thr	Leu	Gly
Thr 465	Met	Ile	Ala	Gly	Asp 470	Thr	Ser	Gly	Asp	Tyr 475	Arg	Arg	Leu	Leu	Leu 480

Ala Ile Val Gly Gln 485

<210> 1665

<211> 235 <212> PRT

<213> Homo sapiens

<400> 1665

Arg Asn Val Ile Glu Ala Cys Leu Gln Thr Gly Thr Arg Phe Leu Val 1 5 10 15

Tyr Thr Ser Ser Met Glu Val Val Gly Pro Asn Thr Lys Gly His Pro 20 25 30

Phe Tyr Arg Gly Asn Glu Asp Thr Pro Tyr Glu Ala Val His Arg His 35 40 45

Pro Tyr Pro Cys Ser Lys Ala Leu Ala Glu Trp Leu Val Leu Glu Ala 50 60

As Gly Arg Lys Val Arg Gly Gly Leu Pro Leu Val Thr Cys Ala Leu 65 70 75 80

Arg Pro Thr Gly Ile Tyr Gly Glu Gly His Gln Ile Met Arg Asp Phe \$85\$ 90 95

Tyr Arg Gln Gly Leu Arg Leu Gly Gly Trp Leu Phe Arg Ala Ile Pro 100 105 110

Ala Ser Val Glu His Gly Arg Val Tyr Val Gly Asn Val Ala Trp Met 115 120 125

His Val Leu Ala Ala Arg Glu Leu Glu Gln Arg Ala Ala Leu Met Gly 130 135 140

Gly Gln Val Tyr Phe Cys Tyr Asp Gly Ser Pro Tyr Arg Ser Tyr Glu 145 150 155 160

Asp Phe Asn Met Glu Phe Leu Gly Pro Leu Arg Thr Ala Ala Gly Gly 165 170 175

Arg Pro Pro Ile Ala Ala Leu Leu Ala Ala Gly Val Pro Gly Cys Pro 180 185 190

Gln Cys Pro Ala Ala Val Ala Ala Ala Ala Thr Gly Ala Leu Arg Thr 195 200 205

Pro Ala Glu Pro Leu His Ala Gly Arg Gly Gln His His Leu His Arg

210 215 220 Gln His Arg Gln Gly Ser Ala Pro Phe Arg Leu 225 230 235 <210> 1666 <211> 292 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (85) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1666 Ala Ala Leu Glu Gly Pro Glu Glu Glu Leu Glu Gly Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His Leu Thr Glu Pro 25 Ser Ser Ser Gly Gly Cys Leu Val Thr Pro Ser Arg Arg Glu Thr Pro 40 45 Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala Thr Leu Thr Pro 50 55 Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met Pro His Leu His 75 Gln Met Pro Arg Xaa Val Pro Leu Gly Pro Ser Ser Pro Leu Ser Val Ser Gln Pro Met Leu Gly Ile Arg Glu Ala Arg Pro Ala Gly Leu Gly 100 Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser Pro Ala Pro Ser 115 120 Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly Asn Gly Glu Met 135 Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg Lys Lys Pro Lys 145 160

Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp Leu Pro Pro Pro

170

165

Pro Leu Pro Pro Pro Glu Glu Glu Ala Ser Trp Ala Leu Glu Leu Arg 180 185 190

Ala Ala Gly Ser Met Ser Ser Leu Glu Arg Glu Arg Ser Gly Glu Arg 195 200 205

Lys Ala Val Gln Ala Val Pro Leu Ala Ala Gln Arg Val Leu His Pro 210 215 220

Asp Glu Glu Ala Trp Leu Pro Tyr Ser Arg Pro Ser Phe Leu Ser Arg 225 \$230\$

Gly Gln Gly Thr Ser Thr Cys Ser Thr Ala Gly Ser Asn Ser Ser arg \$245\$

Gly Ser Ser Ser Ser Arg Gly Ser Arg Gly Pro Gly Arg Ser Arg Ser 260 265 270

Arg Ser Gln Ser Arg Ser Gln Ser Gln Arg Pro Gly Gln Lys Arg Arg 275 280 285

Glu Glu Pro Arg 290

<210> 1667

<211> 521

<212> PRT

<213> Homo sapiens

<400> 1667

Lys Trp Lys Ser Gly Lys Asp Val Asp Ile Ser Leu Leu Val Ser Phe

Asn Lys Met Lys Lys Leu Thr Thr Asp Gly Lys Leu Ile Ala Arg Ala \$20\$

Leu Arg Ser Ser Ala Val Val Glu Leu Asp Leu Glu Gly Thr Arg Ile \$35\$ \$40\$ \$45\$

Arg Arg Lys Lys Pro Leu Gly Glu Arg Pro Lys Asp Glu Asp Glu Arg 50 60

Thr Val Tyr Val Glu Leu Leu Pro Lys Asn Val Asn His Ser Trp Ile 65 70 75 80

Glu Arg Val Phe Gly Lys Cys Gly Asn Val Val Tyr Ile Ser Ile Pro 85 90 95

His Tyr Lys Ser Thr Gly Asp Pro Lys Gly Phe Ala Phe Val Glu Phe

	100		10	5		110
Glu Thr Lys		Ala Ala	Lys Ala	a Ile Glu	Phe Leu 125	Asn Asn Pro
Pro Glu Glu 130	Ala Pro	Arg Lys		y Ile Phe	Pro Lys 140	Thr Val Lys
Asn Lys Pro 145	Ile Pro	Ala Leu 150	Arg Val	l Val Glu 155	Glu Lys	Lys Lys Lys 160
Lys Lys Lys	Lys Gly 165	Arg Met	Lys Lys	Glu Asp 170	Asn Ile	Gln Ala Lys 175
Glu Glu Asn	Met Asp 180	Thr Ser	Asn Thi		Ser Lys	Met Lys Arg 190
Ser Arg Pro		Glu Gly	Ser Asp 200	Ile Glu	Ser Thr 205	Glu Pro Gln
Lys Gln Cys 210	Ser Lys	Lys Lys 215			Arg Val 220	Glu Ala Ser
Ser Leu Pro 225	Glu Val	Arg Thr 230	Gly Lys	Arg Lys 235	Arg Ser	Ser Ser Glu 240
Asp Ala Glu	Ser Leu 245	Ala Pro	Arg Ser	Lys Val 250	Lys Lys	Ile Ile Gln 255
Lys Asp Ile	Ile Lys 260	Glu Ala	Ser Glu 265			Asn Arg Asp 270
Ile Glu Ile 275	Ser Thr	Glu Glu	Glu Lys 280	Asp Thr	Gly Asp 285	Leu Lys Asp
Ser Ser Leu 290	Leu Lys	Thr Lys 295	Arg Lys		Lys Lys 300	His Lys Glu
Arg His Lys 305	Met Gly	Glu Glu 310	Val Ile	Pro Leu 3	Arg Val	Leu Ser Lys 320
Ser Glu Trp	Met Asp 325	Leu Lys	Lys Glu	Tyr Leu 2	Ala Leu	Gln Lys Ala 335
Ser Met Ala	Ser Leu 340	Lys Lys	Thr Ile 345	Ser Gln		Ser Glu Ser 350
Glu Met Glu 355	Thr Asp	Ser Gly	Val Pro 360	Gln Asn	thr Gly 365	Met Lys Asn

Glu Lys Thr Ala Asn Arg Glu Glu Cys Arg Thr Gln Glu Lys Val Asn

370 375 380

Ala Thr Gly Pro Gln Phe Val Ser Gly Val Ile Val Lys Ile Ile Ser 385 \$390\$

Thr Glu Pro Leu Pro Gly Arg Lys Gln Val Arg Asp Thr Leu Ala Ala 405 410 415

Ile Ser Glu Val Leu Tyr Val Asp Leu Leu Glu Gly Asp Thr Glu Cys \$420\$

His Ala Arg Phe Lys Thr Pro Glu Asp Ala Gln Ala Val Ile Asn Ala 435 440 445

Tyr Thr Glu Ile Asn Lys Lys His Cys Trp Lys Leu Glu Ile Leu Ser 450 455 460

Gly Asp His Glu Gln Arg Tyr Trp Gln Lys Ile Leu Val Asp Arg Gln 465 \$470\$

Ala Lys Leu Asn Gln Pro Arg Glu Lys Lys Arg Gly Thr Glu Lys Leu \$485\$

Ile Thr Lys Ala Glu Lys Ile Arg Leu Ala Lys Thr Gln Gln Ala Ser $500 \hspace{1.5cm} 505 \hspace{1.5cm} 510 \hspace{1.5cm}$

Lys His Ile Arg Phe Ser Glu Tyr Asp 515 520

<210> 1668 <211> 306

<211> 306

<212> PRT

<213> Homo sapiens

<400> 1668

Phe Pro Glu Leu Ser Gly Arg Arg Ala Lys Ala Lys Gly Val Trp Arg
1 5 10 15

Ala Ala Pro Gly Ala Asn Met Pro Arg Tyr Ala Gln Leu Val Met Gly $20 \hspace{1cm} 25 \hspace{1cm} 30$

Pro Ala Gly Ser Gly Lys Ser Thr Tyr Cys Ala Thr Met Val Gln His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Glu Ala Leu Asn Arg Ser Val Gln Val Val Asn Leu Asp Pro Ala 50 55 60

Ala Glu His Phe Asn Tyr Ser Val Met Ala Asp Ile Arg Glu Leu Ile 65 70 75 80 Glu Val Asp Asp Val Met Glu Asp Asp Ser Leu Arg Phe Gly Pro Asn $85 \hspace{1cm} 90 \hspace{1cm} 95$

Leu Glu Asn Cys Leu Gly His Val Glu Asp Asp Tyr Ile Leu Phe Asp 115 120 125

Cys Pro Gly Gln Ile Glu Leu Tyr Thr His Leu Pro Val Met Lys Gln 130 135 140

Leu Val Gln Gln Leu Glu Gln Trp Glu Phe Arg Val Cys Gly Val Phe 145 150 155 160

Leu Val Asp Ser Gln Phe Met Val Glu Ser Phe Lys Phe Ile Ser Gly 165 170 175

Ile Leu Ala Ala Leu Ser Ala Met Ile Ser Leu Glu Ile Pro Gln Val 180 185 190

Asn Ile Met Thr Lys Met Asp Leu Leu Ser Lys Lys Ala Lys Lys Glu 195 200 205

Ile Glu Lys Phe Leu Asp Pro Asp Met Tyr Ser Leu Leu Glu Asp Ser 210 215 220

Thr Ser Asp Leu Arg Ser Lys Lys Phe Lys Lys Leu Thr Lys Ala Ile 225 230 235

Cys Gly Leu Ile Asp Asp Tyr Ser Met Val Arg Phe Leu Pro Tyr Asp $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255 \hspace{1.5cm}$

Gln Ser Asp Glu Glu Ser Met Asn Ile Val Leu Gln His Ile Asp Phe \$260\$ \$265\$ \$270\$

Ala Ile Gln Tyr Gly Glu Asp Leu Glu Phe Lys Glu Pro Lys Glu Arg \$275\$

Glu Asp Glu Ser Ser Ser Met Phe Asp Glu Tyr Phe Gln Glu Cys Gln 290 295 300

Asp Glu 305

<210> 1669 <211> 412

<211> 412 <212> PRT <213> Homo sapiens

<400> 1669

Glu Thr Glu Asp Val Met Glu Leu Leu Glu Glu Asp Leu Thr Cys Pro
1 5 10 15

Ile Cys Cys Ser Leu Phe Asp Asp Pro Arg Val Leu Pro Cys Ser His

Asn Phe Cys Lys Lys Cys Leu Glu Glu Glu Ile Leu Glu Glu Ser Val Arg 35 40 45

Asn Ser Leu Trp Arg Pro Ala Pro Phe Lys Cys Pro Thr Cys Arg Lys $50 \hspace{1cm} 55 \hspace{1cm} 60$

Glu Thr Ser Ala Thr Gly Ile Asn Ser Leu Gln Val Asn Tyr Ser Leu 65 70 75 80

Lys Gly Ile Val Glu Lys Tyr Asn Lys Ile Lys Ile Ser Pro Lys Met \$85\$

Pro Val Cys Lys Gly His Leu Gly Gln Pro Leu Asn Ile Phe Cys Leu 100 105 110

Thr Asp Met Gln Leu Ile Cys Gly Ile Cys Ala Thr Arg Gly Glu His 115 $$\rm 120$$

Thr Lys His Val Phe Cys Ser Ile Glu Asp Ala Tyr Ala Gln Glu Arg 130 135 140

Asp Ala Phe Glu Ser Leu Phe Gln Ser Phe Glu Thr Trp Arg Arg Gly 145 150 155 160

Asp Ala Leu Ser Arg Leu Asp Thr Leu Glu Thr Ser Lys Arg Lys Ser 165 170 175

Leu Gln Leu Thr Lys Asp Ser Asp Lys Val Lys Glu Phe Phe Glu 180 $$185\mbox{\footnotement}$$

Lys Leu Gln His Thr Leu Asp Gln Lys Lys Asn Glu Ile Leu Ser Asp 195 200 205

Phe Glu Thr Met Lys Leu Ala Val Met Gln Ala Tyr Asp Pro Glu Ile 210 215 220

Asn Lys Leu Asn Thr Ile Leu Gln Glu Gln Arg Met Ala Phe Asn Ile 225 230 235 240

Ala Glu Ala Phe Lys Asp Val Ser Glu Pro Ile Val Phe Leu Gln Gln 245 250 255

Met Gln Glu Phe Arg Glu Lys Ile Lys Val Ile Lys Glu Thr Pro Leu 260 265 270

Pro Pro Ser Asn Leu Pro Ala Ser Pro Leu Met Lys Asn Phe Asp Thr \$275\$

Ser Gln Trp Glu Asp Ile Lys Leu Val Asp Val Asp Lys Leu Ser Leu 290 295 300

Pro Gln Asp Thr Gly Thr Phe Ile Ser Lys Ile Pro Trp Ser Phe Tyr 305 \$310\$ \$315

Lys Leu Phe Leu Leu Ile Leu Leu Gly Leu Val Ile Val Phe Gly \$325\$

Pro Thr Met Phe Leu Glu Trp Ser Leu Phe Asp Asp Leu Ala Thr Trp $340 \hspace{1.5cm} 345 \hspace{1.5cm} 350 \hspace{1.5cm}$

Lys Gly Cys Leu Ser Asn Phe Ser Ser Tyr Leu Thr Lys Thr Ala Asp 355 360 365

Phe Ile Glu Gln Ser Val Phe Tyr Trp Glu Gln Val Thr Asp Gly Phe 370 375 380

Phe Ile Phe Asn Glu Arg Phe Lys Asn Phe Thr Leu Val Val Leu Asn 385 395 400

Asn Val Ala Glu Phe Val Cys Lys Tyr Lys Leu Leu 405 410

<210> 1670

<211> 89

<212> PRT

<213> Homo sapiens

<400> 1670

Pro Glu Glu Ala Leu Glu Pro Glu Ala Met Ala His Tyr Pro Thr Arg $1 \ 5 \ 10 \ 15$

Leu Lys Thr Arg Lys Thr Tyr Ser Trp Val Gly Arg Pro Leu Leu Asp \$20\$ \$25\$ \$30

Arg Lys Leu His Tyr Gln Thr Tyr Arg Glu Met Cys Val Lys Thr Glu 35 40 45

Gly Cys Ser Thr Glu Ile His Ile Gln Ile Gly Gln Phe Val Leu Ile $50 \hspace{1cm} 55 \hspace{1cm} 60$

Glu Gly Asp Asp Asp Glu Asn Pro Tyr Val Ala Lys Leu Leu Glu Leu

65 70 75 80

Phe Glu Asp Asp Ser Asp Pro Pro Pro 85

<210> 1671

<211> 218

<212> PRT

<213> Homo sapiens

<400> 1671

Asp Pro Arg Val Arg Ile Glu Ile Ile Thr Asp Arg Gln Ser Gly Lys 1 5 10 15

Lys Arg Gly Phe Gly Phe Val Thr Phe Asp Asp His Asp Pro Val Asp 20 25 30

Lys Ile Val Leu Gln Lys Tyr His Thr Ile Asn Gly His Asn Ala Glu \$35\$ \$40\$

Val Arg Lys Ala Leu Ser Arg Gln Glu Met Gln Glu Val Gln Ser Ser 50 55 60

Arg Ser Gly Arg Gly Gly Asn Phe Gly Phe Gly Asp Ser Arg Gly Gly 65 70 75 80

Gly Gly Asn Phe Gly Pro Gly Pro Gly Ser Asn Phe Arg Gly Gly Ser 85 90 95

Asp Gly Tyr Gly Ser Gly Arg Gly Phe Gly Asp Gly Tyr Asn Gly Tyr 100 105 110

Gly Gly Gly Pro Gly Gly Gly Asn Phe Gly Gly Ser Pro Gly Tyr Gly 115 120 125

Gly Gly Arg Gly Gly Tyr Gly Gly Gly Gly Pro Gly Tyr Gly Asn Gln 130 135 140

Gly Gly Gly Tyr Gly Gly Gly Tyr Asp Asn Tyr Gly Gly Gly Asn Tyr 145 \$150\$

Gly Ser Gly Asn Tyr Asn Asp Phe Gly Asn Tyr Asn Gln Gln Pro Ser 165 170 175

Asn Tyr Gly Pro Met Lys Ser Gly Asn Phe Gly Gly Ser Arg Asn Met 180 185 190

Gly Gly Pro Tyr Gly Gly Gly Asn Tyr Gly Pro Gly Gly Ser Gly Gly 195 200 205

```
Ser Gly Gly Tyr Gly Gly Arg Ser Arg Tyr
    210
                       215
<210> 1672
<211> 575
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (186)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (555)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1672
Glu Glu Leu Arg Val Arg Glu His Val Thr Gly Gly Ile Cys Gly Gly
                  5
Ser Gln Met Met Val Val Leu Leu Gly Ala Thr Thr Leu Val Leu Val
             20
                                 25
Ala Val Ala Pro Trp Val Leu Ser Ala Ala Ala Gly Gly Lys Asn Leu
Lys Ser Pro Gln Lys Val Glu Val Asp Ile Ile Asp Asp Asn Phe Ile
Leu Arg Trp Asn Arg Ser Asp Glu Ser Val Gly Asn Val Thr Phe Ser
 65
                    70
Phe Asp Tyr Gln Lys Thr Gly Met Asp Asn Trp Ile Lys Leu Ser Gly
Cys Gln Asn Ile Thr Ser Thr Lys Cys Asn Phe Ser Ser Leu Lys Leu
                              105
Asn Val Tyr Glu Glu Ile Lys Leu Arg Ile Arg Ala Glu Lys Glu Asn
        115
Thr Ser Ser Trp Tyr Glu Val Asp Ser Phe Thr Pro Phe Arg Lys Ala
    130
                       135
Gln Ile Gly Pro Pro Glu Val His Leu Glu Ala Glu Asp Lvs Ala Ile
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155

160

150

145

Val	Ile	His	Ile	Ser 165		Gly	Thr	Lys	Asp		Val	Met	Trp	Ala 175	Leu
Asp	Gly	Leu	Ser 180		Thr	Tyr	Ser	Leu 185		Ile	Trp	Lys	Asn 190	Ser	Ser
Gly	Val	Glu 195		Arg	Ile	Glu	Asn 200		Tyr	Ser	Arg	His 205	Lys	Ile	Tyr
Lys	Leu 210	ser	Pro	Glu	Thr	Thr 215		Cys	Leu	Lys	Val 220	Lys	Ala	Ala	Leu
Leu 225	Thr	Ser	Trp	Lys	11e 230	Gly	Val	Tyr	Ser	Pro 235	Val	His	Cys	Ile	Lys 240
Thr	Thr	Val	Glu	Asn 245	Glu	Leu	Pro	Pro	Pro 250	Glu	Asn	Ile	Glu	Val 255	Ser
Val	Gln	Asn	Gln 260	Asn	Tyr	Val	Leu	Lys 265	Trp	Asp	Tyr	Thr	Tyr 270	Ala	Asn
Met	Thr	Phe 275	Gln	Val	Gln	Trp	Leu 280	His	Ala	Phe	Leu	Lys 285	Arg	Asn	Pro
Gly	Asn 290	His	Leu	Tyr	Lys	Trp 295	Lys	Gln	Ile	Pro	Asp 300	Cys	Glu	Asn	Val
Lys 305	Thr	Thr	Gln	Суѕ	Val 310	Phe	Pro	Gln	Asn	Val 315	Phe	Gln	Lys	Gly	Ile 320
Tyr	Leu	Leu	Arg	Val 325	Gln	Ala	ser	Asp	Gly 330	Asn	Asn	Thr	Ser	Phe 335	Trp
Ser	Glu	Glu	11e 340	Lys	Phe	Asp	Thr	Glu 345	Ile	Gln	Ala	Phe	Leu 350	Leu	Pro
Pro	Val	Phe 355	Asn	Ile	Arg	Ser	Leu 360	Ser	Asp	Ser	Phe	His 365	Ile	Tyr	Ile
Gly	Ala 370	Pro	Lys	Gln	Ser	Gly 375	Asn	Thr	Pro	Val	Ile 380	Gln	Asp	Tyr	Pro
Leu 385	Ile	Tyr	Glu	Ile	Ile 390	Phe	Trp	Glu	Asn	Thr 395	ser	Asn	Ala	Glu	Arg 400
Lys	Ile	Ile	Glu	Lys 405	Lys	Thr	Asp	Val	Thr 410	Val	Pro	Asn	Leu	Lys 415	Pro
Leu	Thr	Val	Tyr 420	Cys	Val	Lys		Arg 425	Ala	His	Thr	Met	Asp 430	Glu	Lys

Leu Asn Lys Ser Ser Val Phe Ser Asp Ala Val Cys Glu Lys Thr Lys 435 440 445

Pro Gly Asn Thr Ser Lys Ile Trp Leu Ile Val Gly Ile Cys Ile Ala 450 455 460

Leu Phe Ala Leu Pro Phe Val Ile Tyr Ala Ala Lys Val Phe Leu Arg 465 470 475 480

Cys Ile Asn Tyr Val Phe Phe Pro Ser Leu Lys Pro Ser Ser Ser Ile \$485\$ \$490\$ \$495\$

Asp Glu Tyr Phe Ser Glu Gln Pro Leu Lys Asn Leu Leu Leu Ser Thr 500 505 510

Ser Glu Glu Gln Ile Glu Lys Cys Phe Ile Ile Glu Asn Ile Ser Thr \$515\$ \$520\$ \$525

Ile Ala Thr Val Glu Glu Thr Asn Gln Thr Asp Glu Asp His Lys Lys $530 \hspace{1.5cm} 535 \hspace{1.5cm} 540$

Tyr Ser Ser Gln Thr Ser Gln Asp Ser Gly Xaa Tyr Ser Asn Glu Asp 545 550 555

Glu Ser Glu Ser Lys Thr Ser Glu Glu Leu Gln Gln Asp Phe Val 565 570 575

<210> 1673 <211> 571

<212> PRT

<213> Homo sapiens

<400> 1673

Asp Ala Trp Glu Leu Ser Arg Gly Gly Pro Phe Glu Arg Ile Ala Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gln Pro Leu Ile Pro Pro Ala Ser Pro Pro Val Glu Ala Gln Ala Arg $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Ala Ala Phe Ser Leu Cys Leu Ile Thr Met Ser Thr Asn Glu Asn 35 40 45

Ala Asn Thr Pro Ala Ala Arg Leu His Arg Phe Lys Asn Lys Gly Lys
50 60

Asp Ser Thr Glu Met Arg Arg Arg Ile Glu Val Asn Val Glu Leu 65 70 75 80

Arg	Lys	Ala	Lys	Lys 85		Asp	Gln	Met	90		Arg	Arg	Asn	95	Ser
Ser	Phe	Pro	Asp 100		Ala	Thr	Ser	Pro 105		Gln	Glu	Asn	Arg 110		Asn
Gln	Gly	Thr 115	Val	Asn	Trp	Ser	Val 120		Asp	Ile	Val	Lys 125	Gly	Ile	Asn
Ser	Ser 130	Asn	Val	Glu	Asn	Gln 135		Gln	Ala	Thr	Gln 140	Ala	Ala	Arg	Lys
Leu 145	Leu	Ser	Arg	Glu	Lys 150	Gln	Pro	Pro	Ile	Asp 155	Asn	Ile	Ile	Arg	Ala 160
Gly	Leu	Ile	Pro	Lys 165	Phe	Val	Ser	Phe	Leu 170	Gly	Arg	Thr	Asp	Cys 175	ser
Pro	Ile	Gln	Phe 180	Glu	Ser	Ala	Trp	Ala 185	Leu	Thr	Asn	Ile	Ala 190	Ser	Gly
Thr	Ser	Glu 195	Gln	Thr	Lys	Ala	Val 200	Val	Asp	Gly	Gly	Ala 205	Ile	Pro	Ala
Phe	11e 210	Ser	Leu	Leu	Ala	Ser 215	Pro	His	Ala	His	Ile 220	Ser	Glu	Gln	Ala
val 225	Trp	Ala	Leu	Gly	Asn 230	Ile	Ala	Gly	Asp	Gly 235	Ser	Val	Phe	Arg	Asp 240
Leu	Val	Ile	Lys	Tyr 245	Gly	Ala	Val	Asp	Pro 250	Leu	Leu	Ala	Leu	Leu 255	Ala
Val	Pro	Asp	Met 260	Ser	ser	Leu	Ala	Cys 265	Gly	Tyr	Leu	Arg	Asn 270	Leu	Thr
Trp	Thr	Leu 275	Ser	Asn	Leu	Cys	Arg 280	Asn	Lys	Asn	Pro	Ala 285	Pro	Pro	Ile
Asp	Ala 290	Val	Glu	Gln	Ile	Leu 295	Pro	Thr	Leu	Val	Arg 300	Leu	Leu	His	His
Asp 305	Asp	Pro	Glu	Val	Leu 310	Ala	Asp	Thr	Cys	Trp 315	Ala	Ile	Ser	Tyr	Leu 320
Thr	Asp	Gly	Pro	Asn 325	Glu	Arg	Ile	Gly	Met 330	Val	Val	Lys	Thr	Gly 335	Val
Val	Pro	Gln	Leu 340	Val	Lys	Leu	Leu	Gly 345	Ala	Ser	Glu	Leu	Pro 350	Ile	Val

Thr Pro Ala Leu Arg Ala Ile Gly Asn Ile Val Thr Gly Thr Asp Glu \$355\$

Gln Thr Gln Val Val Ile Asp Ala Gly Ala Leu Ala Val Phe Pro Ser $370 \\ \hspace*{1.5cm} 375 \\ \hspace*{1.5cm} 380$

Leu Leu Thr Asn Pro Lys Thr Asn Ile Gln Lys Glu Ala Thr Trp Thr 385 390 395 400

Met Ser Asn Ile Thr Ala Gly Arg Gln Asp Gln Ile Gln Gln Val Val 405 410 415

Asn His Gly Leu Val Pro Phe Leu Val Ser Val Leu Ser Lys Ala Asp 420 425 430

Phe Lys Thr Gln Lys Glu Ala Val Trp Ala Val Thr Asn Tyr Thr Ser 435 440 445

Gly Gly Thr Val Glu Gln Ile Val Tyr Leu Val His Cys Gly Ile Ile 450 455 460

Glu Pro Leu Met Asn Leu Leu Thr Ala Lys Asp Thr Lys Ile Ile Leu 465 470 475 480

Val Ile Leu Asp Ala Ile Ser Asn Ile Phe Gln Ala Ala Glu Lys Leu 485 490 495

Gly Glu Thr Glu Lys Leu Ser Ile Met Ile Glu Glu Cys Gly Gly Leu 500 505 510

Asp Lys Ile Glu Ala Leu Gln Asn His Glu Asn Glu Ser Val Tyr Lys 515 520 525

Ala Ser Leu Ser Leu Ile Glu Lys Tyr Phe Ser Val Glu Glu Glu Glu 530 \$535\$

Asp Gln Asn Val Val Pro Glu Thr Thr Ser Glu Gly Tyr Thr Phe Gln 545 550 555 560

Val Gln Asp Gly Ala Pro Gly Thr Phe Asn Phe 565 570

<210> 1674 <211> 375

<211> 375 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<222> (338)
<223> Xaa equals any of the naturally occurring L-amino acids
< 220>
<221> SITE
<222> (340)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (356)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (372)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1674
Ser Glu Pro Leu Gly Arg Phe Leu Leu Phe Arg Arg Leu His Ser Val
Pro Arg Gly Ser Ala Leu Cys Ala Met Asp Gly Ile Val Pro Asp Ile
             20
                                 25
Ala Val Gly Thr Lys Arg Gly Ser Asp Glu Leu Phe Ser Thr Cvs Val
                             40
Thr Asn Gly Pro Phe Ile Met Ser Ser Asn Ser Ala Ser Ala Ala Asn
                         55
Gly Asn Asp Ser Lys Lys Phe Lys Gly Asp Ser Arg Ser Ala Gly Val
65
                     70
                                        75
Pro Ser Arg Val Ile His Ile Arg Lys Leu Pro Ile Asp Val Thr Glu
                 85
Gly Glu Val Ile Ser Leu Gly Leu Pro Phe Gly Lys Val Thr Asn Leu
Leu Met Leu Lys Gly Lys Asn Gln Ala Phe Ile Glu Met Asn Thr Glu
                           120
Glu Ala Ala Asn Thr Met Val Asn Tyr Tyr Thr Ser Val Thr Pro Val
    130
                       135
                                           140
Leu Arg Gly Gln Pro Ile Tyr Ile Gln Phe Ser Asn His Lys Glu Leu
145
                    150
                                        155
Lys Thr Asp Ser Ser Pro Asn Gln Ala Arg Ala Gln Ala Ala Leu Gln
                165
                                   170
                                                        175
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Ala Val Asn Ser Val Gln Ser Gly Asn Leu Ala Leu Ala Ala Ser Ala 180 185 190

Ala Ala Val Asp Ala Gly Met Ala Met Ala Gly Gln Ser Pro Val Leu 195 200200205

Arg Ile Ile Val Glu Asn Leu Phe Tyr Pro Val Thr Leu Asp Val Leu 210 215 220

His Gln Ile Phe Ser Lys Phe Gly Thr Val Leu Lys Ile Ile Thr Phe 225 230 235 240

Thr Lys Asn Asn Gln Phe Gln Ala Leu Leu Gln Tyr Ala Asp Pro Val $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Ser Ala Gln His Ala Lys Leu Ser Leu Asp Gly Gln Asn Ile Tyr Asn $260 \\ \hspace*{1.5cm} 265 \\ \hspace*{1.5cm} 270 \\ \hspace*{1.5cm}$

Ala Cys Cys Thr Leu Arg Ile Asp Phe Ser Lys Leu Thr Ser Leu Asn \$275\$

Val Lys Tyr Asn Asn Asp Lys Ser Arg Asp Tyr Thr Arg Pro Asp Leu 290 295

Pro Ser Gly Asp Ser Gln Pro Ser Leu Asp Gln Thr Met Ala Ala Ala 305 310 315

Phe Gly Ala Pro Gly Ile Ile Ser Ala Ser Pro Tyr Ala Gly Ala Gly 325 330 335

Phe Xaa Pro Xaa Phe Ala Ile Pro Gln Ala Ala Gly Phe Pro Phe Arg \$340\$

Thr Ser Thr Xaa Pro Trp Pro Leu Ala Arg Thr Glu Pro Arg Trp Leu 355 360 365

Leu Ile Ala Kaa Gly Thr Ala 370 375

<210> 1675 <211> 193

<211> 193 <212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1675

Pro Arg Phe Ser Val Phe Cys Ser Arg Leu Arg Arg Glu Arg Arg Arg 1 5 10 15

Arg Trp Arg Leu Arg Arg Glu Thr Ala Arg Arg Ser Glu Arg Ala Leu 20 25 30

Arg Leu Pro Pro Gln Gln Arg Arg Arg Arg Arg His Arg Ser Ser 35 40 45

Pro Asp Arg Ser Arg Ser Leu Pro Ser Pro Ala Ile Arg Ala Pro Leu 50 55 60

Pro Asp Leu Tyr Pro Phe Gly Thr Met Arg Gly Gly Gly Phe Gly Asp 65 70 75 80

Arg Asp Arg Asp Arg Gly Gly Gly Phe Gly Ala Arg Gly Gly Gly 85 90 95

Lys Lys Trp Asp Leu Ser Glu Leu Pro Lys Phe Glu Lys Asn Phe Tyr 115 120 125

Val Glu His Pro Glu Val Ala Arg Leu Thr Pro Tyr Glu Val Asp Glu 130 135 140

Leu Arg Arg Lys Lys Glu Ile Thr Val Arg Gly Gly Asp Val Cys Pro 145 150 150 155 160

Lys Pro Val Phe Ala Phe His His Ala Asn Phe Pro Gln Tyr Val Met 165 170 175

Asp Val Leu Met Asp Ser Arg Thr Leu Gln Asp Asn Ile Xaa Gly Arg $180 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$

Leu

<210> 1676

<211> 365

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (220) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1676 His Glu Gly Met Phe Pro Pro Phe Lys Val Arg Cys Ser Gly Leu Asp 10 Lys Lys Ala Lys Tyr Ile Leu Leu Met Asp Ile Ile Ala Ala Asp Asp 20 Cys Arg Tyr Lys Phe His Asn Ser Arg Trp Met Val Ala Gly Xaa Ala Asp Pro Glu Met Pro Lys Arg Met Tyr Ile His Pro Asp Ser Pro Ala 55 Thr Gly Glu Gln Trp Met Ser Lys Val Val Thr Phe His Lys Leu Lys 65 Leu Thr Asn Asn Ile Ser Asp Lys His Gly Phe Thr Leu Ala Phe Pro Ser Asp His Ala Thr Trp Gln Gly Asn Tyr Ser Phe Gly Thr Gln Thr Ile Leu Asn Ser Met His Lys Tyr Gln Pro Arg Phe His Ile Val Arg 115 120 Ala Asn Asp Ile Leu Lys Leu Pro Tyr Ser Thr Phe Arg Thr Tyr Leu Phe Pro Glu Thr Glu Phe Ile Ala Val Thr Ala Tyr Gln Asn Asp Lys 150 155 Ile Thr Gln Leu Lys Ile Asp Asn Asn Pro Phe Ala Lys Gly Phe Arg 165 Asp Thr Gly Asn Gly Arg Arg Glu Lys Arg Lys Gln Leu Thr Leu Gln 180 185 Ser Met Arg Val Phe Asp Glu Arg His Lys Lys Glu Asn Gly Thr Ser Asp Glu Ser Ser Ser Glu Gln Ala Ala Phe Asn Xaa Phe Ala Gln Ala 215

Ser Ser Pro Ala Ala Ser Thr Val Gly Thr Ser Asn Leu Lys Asp Leu

225 230 235 240 Cys Pro Ser Glu Gly Glu Ser Asp Ala Glu Ala Glu Ser Lys Glu Glu 245 250 His Gly Pro Glu Ala Cys Asp Ala Ala Lys Ile Ser Thr Thr Thr Ser 265 Glu Glu Pro Cys Arg Asp Lys Gly Ser Pro Ala Val Lys Ala His Leu 280 Phe Ala Ala Glu Arg Pro Arg Asp Ser Gly Arg Leu Asp Lys Ala Ser 290 295 Pro Asp Ser Arg His Ser Pro Ala Thr Ile Ser Ser Ser Thr Arg Gly 305 315 Leu Gly Ala Glu Glu Arg Arg Ser Pro Val Arg Glu Gly Thr Ala Pro 325 330 Ala Lys Val Glu Glu Ala Arg Ala Leu Pro Gly Lys Glu Ala Phe Ala 340 345 350 Pro Leu Thr Val Gln Thr Asp Ala Ala Ala Ser Leu Phe 355 360 <210> 1677 <211> 668 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (70) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (71) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1677 His Met Val Leu Arg Pro Phe Leu Leu Arg Arg Ile Lys Ala Asp Val Glu Lys Ser Leu Pro Pro Lys Lys Glu Val Lys Ile Tyr Val Gly Leu

25 Ser Lys Met Gln Arg Glu Trp Tyr Thr Arg Ile Leu Met Lys Asp Ile

		35	ò				40)				45	,		
Ası	11e		Asn	ser	Ala	G1 ₃		Met	: Asp	Lys	Met 60		, Leu	Leu	Asr
11e		Met	Gln	Leu	70		Cys	Cys	Asn	His 75		Tyr	Leu	Phe	Asp 80
Gly	Ala	Glu	Pro	61y 85		Pro	Tyr	Thr	Thr 90		Met	His	Leu	Val 95	
Asn	Ser	Gly	Lys 100		. Val	Val	Leu	Asp 105		Leu	Leu	Pro	Lys 110		Lys
Glu	Gln	Gly 115	Ser	Arg	Val	Leu	11e		Ser	Gln	Met	Thr 125	Arg	Val	Leu
Asp	11e 130	Leu	Glu	Asp	Tyr	Cys 135		Trp	Arg	Asn	Tyr 140		Tyr	Cys	Arg
Leu 145	Asp	Gly	Gln	Thr	Pro 150	His	Asp	Glu	Arg	G1n 155	Asp	Ser	Ile	Asn	Ala 160
Tyr	Asn	Glu	Pro	Asn 165	Ser	Thr	Lys	Phe	Val 170	Phe	Met	Leu	Ser	Thr 175	Arg
Ala	Gly	Gly	Leu 180	Gly	Ile	Asn	Leu	Ala 185	Thr	Ala	Asp	Val	Val 190	Ile	Leu
Tyr	Asp	Ser 195	Asp	Trp	Asn	Pro	Gln 200	Val	Asp	Leu	Gln	Ala 205	Met	Asp	Arg
Ala	His 210	Arg	Ile	Gly	Gln	Thr 215	Lys	Thr	Val	Arg	Val 220	Phe	Arg	Phe	Ile
Thr 225	Asp	Asn	Thr	Val	Glu 230	Glu	Arg	Ile	Val	Glu 235	Arg	Ala	Glu	Met	Lys 240
Leu	Arg	Leu	Asp	Ser 245	Ile	Val	Ile	Gln	G1n 250	Gly	Arg	Leu	Val	Asp 255	Gln
Asn	Leu	Asn	Lys 260	Ile	Gly	Lys	Asp	G1u 265	Met	Leu	Gln	Met	11e 270	Arg	His
Gly	Ala	Thr 275	His	Val	Phe	Ala	Ser 280	Lys	Glu	Ser	Glu	Ile 285	Thr	Asp	Glu
Asp	11e 290	Asp	Gly	Ile	Leu	Glu 295	Arg	Gly	Ala	Lys	Lys 300	Thr	Ala	Glu	Met
Asn	Glu	Lys	Leu	Ser	Lys	Met	Gly	Glu	Ser	Ser	Leu	Arg	Asn	Phe	Thr

WO 00/55174 PCT/US00/05988 1533

305					310)				315					320
Met	Asp	Thr	Glu	325		· Val	l Tyr	Ası	330		Gly	Glu	Asp	335	Arg
Glu	Lys	Glr	Lys 340		Ala	Phe	Thr	Glu 345		Ile	Glu	Pro	Pro 350		Arg
Glu	Arg	Lys 355		Asr	Туг	Ala	360		Ala	Tyr	Phe	Arg 365		Ala	Leu
Arg	Val 370	Ser	Glu	Pro	Lys	Ala 375	Pro	Lys	Ala	Pro	Arg 380		Pro	Lys	Gln
Pro 385	Asn	Val	Gln	Asp	Phe 390		Phe	Phe	Pro	9ro 395		Leu	Phe	Glu	Leu 400
Leu	Glu	Lys	Glu	11e 405		Phe	Tyr	Arg	Lys 410		Ile	Gly	Tyr	Lys 415	Val
Pro	Arg	Asn	Pro 420	Glu	Leu	Pro	Asn	Ala 425		Gln	Ala	Gln	Lys 430	Glu	Glu
Gln	Leu	Lys 435	Ile	Asp	Glu	Ala	Glu 440	Ser	Leu	Asn	Asp	Glu 445	Glu	Leu	Glu
	Lys 450	Glu	Lys	Leu	Leu	Thr 455	Gln	Gly	Phe	Thr	Asn 460	Trp	Asn	Lys	Arg
Asp 465	Phe	Asn	Gln	Phe	11e 470	Lys	Ala	Asn	Glu	Lys 475	Trp	Gly	Arg	Asp	Asp 480
Ile	Glu	Asn	Ile	Ala 485	Arg	Glu	Val	Glu	Gly 490	Lys	Thr	Pro	Glu	Glu 495	Val
Ile	Glu	Tyr	Ser 500	Ala	Val	Phe	Trp	G1u 505	Arg	Cys	Asn	Glu	Leu 510	Gln	Asp
Ile	Glu	Lys 515	Ile	Met	Ala	Gln	Ile 520	Glu	Arg	Gly	Glu	Ala 525	Arg	Ile	Gln
Arg .	Arg 530	Ile	Ser	Ile	Lys	Lys 535	Ala	Leu	Asp	Thr	Lys 540	Ile	Gly	Arg	Tyr
Lys 5	Ala	Pro	Phe	His	Gln 550	Leu	Arg	Ile	Ser	Tyr 555	Gly	Thr	Asn	Lys	Gly 560
Lys	Asn	Tyr	Thr	Glu 565	Glu	Glu	Asp	Arg	Phe 570	Leu	Ile	Cys	Met	Leu 575	His
Lys 1	Leu	Gly	Phe	Asp	Lys	Glu	Asn	Val	Tyr	Asp	Glu	Leu	Arg	Gln	Cys

580 585 590

Ile Arg Asn Ser Pro Gln Phe Arg Phe Asp Trp Phe Leu Lys Ser Arg

Thr Ala Met Glu Leu Gln Arg Arg Cys Asn Thr Leu Ile Thr Leu Ile 610 615 620

Glu Arg Glu Asn Met Glu Leu Glu Glu Lys Glu Lys Ala Glu Lys Lys 625 630 635 640

Lys Arg Gly Pro Lys Pro Ser Thr Gln Lys Arg Lys Met Asp Gly Ala 645 650 655

Pro Asp Gly Arg Gly Arg Lys Lys Leu Lys Leu 660 665

<210> 1678

<211> 237

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1678

Gly Arg Lys Arg Pro Leu Pro Xaa Lys Gly Trp Ser Arg Ala Gly Ala 1 5 10 15

Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu Gly 20 25 30

Leu Leu Leu Leu Leu Val Pro Gly Gly Gly Ala Ala Lys Thr Gly 35 40 45

Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu Asn Thr His

His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr Gly Ser Gly Ser 65 70 75 80

Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser Asp Asp Ala Asn Ser 85 90 95

Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly Gly Cys Pro Arg Gly Ser 100 105 110

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Pro Val Arg Cys Gly Gln Ala Val Arg Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe Pro Ser Pro Leu Ser Asn Asn Gln 135 Glu Val Ser Ala Phe Gly Glu Asp Gly Glu Gly Asp Asp Leu Asp Leu 145 150 155 Trp Thr Val Arg Cys Ser Gly Gln His Trp Glu Arg Glu Ala Ala Val 165 170 Arg Phe Gln His Val Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro 200 Ser Ala Asn Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile 210 215 220 Lys Pro Ser Val Glu Pro Ser Ala Glv His Asp Glu Leu 225 230 235 <210> 1679 <211> 168 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (101) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (118) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (144) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1679 Glu His Tyr Ser Cys Phe Leu Phe Gln Asn Pro Thr Pro His Pro Ser

Cys Asp Ala Met Ser Thr Asn Ile Cys Ser Phe Lys Asp Arg Cys Val

20 25 30

Ser Ile Leu Cys Cys Lys Phe Cys Lys Gln Val Leu Ser Ser Arg Gly 35 40 45

Met Lys Ala Val Leu Leu Ala Asp Thr Glu Ile Asp Leu Phe Ser Thr $50 \hspace{1cm} 55 \hspace{1cm} 60 \hspace{1cm}$

Asp Ile Pro Pro Thr Asn Ala Val Asp Phe Thr Gly Arg Cys Tyr Phe 65 70 75 80

Thr Lys Ile Cys Lys Cys Lys Leu Lys Asp Ile Ala Cys Leu Lys Cys 85 90 95

Gly Asn Ile Val Xaa Tyr His Val Ile Val Pro Cys Ser Ser Cys Leu 100 105 110

Leu Ser Cys Asn Asn Xaa His Phe Trp Met Phe His Ser Gln Ala Val

Tyr Asp Ile Asn Arg Leu Asp Ser Thr Gly Val Asn Val Leu Leu Xaa 130 135 140

Gly Asn Leu Pro Glu Ile Glu Glu Ser Thr Asp Glu Asp Val Leu Asn 145 155 160

Ile Ser Ala Glu Glu Cys Ile Arg 165

<210> 1680

<211> 519

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (321)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (332)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (333)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (337) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (511) <223> Xaa equals any of the naturally occurring L-amino acids Lys Thr Glu Arg Lys Gln Glu Gly Arg Ser Leu Leu Phe Glu Phe Val Ala Arg Glu Ala Leu Gln Ser Gly Leu Ala Leu Gly Tyr Trp Leu Gly Pro Met Leu Gly Thr Leu Arg Ala Met Glu Gly Glu Asp Val Glu Asp 40 Asp Gln Leu Leu Gln Lys Leu Arg Ala Ser Arg Arg Arg Phe Gln Arg 50 55 Arg Met Gln Arg Leu Ile Glu Lys Tyr Asn Gln Pro Phe Glu Asp Thr Pro Val Val Gln Met Ala Thr Leu Thr Tyr Glu Thr Pro Gln Gly Leu 90 Arg Ile Trp Gly Gly Arg Leu Ile Lys Glu Arg Asn Lys Gly Glu Ile 100 110 Gln Asp Ser Ser Met Lys Pro Ala Asp Arg Thr Asp Gly Ser Val Gln 120 Ala Ala Arp Gly Pro Glu Leu Pro Ser His Arg Thr Val Leu Gly 135 Ala Asp Ser Lys Ser Gly Glu Val Asp Ala Thr Ser Asp Gln Glu Glu 145 150 155 Ser Val Ala Trp Ala Leu Ala Pro Ala Val Pro Gln Ser Pro Leu Lys Asn Glu Leu Arg Arg Lys Tyr Leu Thr Gln Val Asp Ile Leu Leu Gln 185 Gly Ala Glu Tyr Phe Glu Cys Ala Gly Asn Arg Ala Gly Arg Asp Val 195 200

Arg Val Thr Pro Leu Pro Ser Leu Ala Ser Pro Ala Val Pro Ala Pro

210		215	220	
Gly Tyr Cys 225	Ser Arg Ile 230	Ser Gly Lys	Ser Pro Gly As	sp Pro Ala Lys 240
Pro Ala Ser	Ser Pro Arg 245	Glu Trp Asp	Pro Leu His Pr 250	o Ser Ser Thr 255
Asp Met Ala	Leu Val Pro 260	Arg Asn Asp 265	Ser Leu Ser Le	u Gln Glu Thr 270
Ser Ser Ser 275	Ser Phe Leu	Ser Ser Gln 280	Pro Phe Glu As	
Cys Asn Val 290		Asp Leu Tyr 295	Ala Gly Met Le 300	u His Ser Met
Ser Arg Leu 305	Leu Ser Thr 310	Lys Pro Ser	Ser Ile Ile Se 315	r Thr Lys Thr 320
Xaa Ile Met	Gln Asn Trp 325	Asn Ser Arg	Arg Arg Xaa Xa 330	a Tyr Lys Ser 335
	Lys Thr Tyr 340	Cys Lys Gly 345	Ala Arg Arg Se	r Gln Arg Ser 350
Ser Lys Glu 355	Asn Phe Ile	Pro Cys Ser 360	Glu Pro Val Ly 36	
Ala Leu Arg 370		Asn Val Leu 375	Asp Val Ser Cy 380	s Arg Lys Thr
Gly Leu Lys : 385	Leu Glu Lys . 390	Ala Phe Leu	Glu Val Asn Ar 395	g Pro Gln Ile 400
His Lys Leu	Asp Pro Ser : 405	Trp Lys Glu	Arg Lys Val Th: 410	r Pro Ser Lys 415
	Leu Ile Tyr 1 420	Phe Asp Ser 425	Ser Ala Thr Ty	r Asn Leu Asp 430
Glu Glu Asn 435	Arg Phe Arg S	Thr Leu Lys 440	Trp Leu Ile Ser 449	
Ile Val Ser 2 450		Ile Arg Gln 455	Gly His Gly Glo 460	ı Asn Arg Gln
Arg Glu Ile (Glu Ile Arg I 470	Phe Asp Gln	Leu His Arg Glu 475	Tyr Cys Leu 480
Ser Pro Arg A	Asn Gln Pro A	Arg Arg Met	Cys Leu Pro Asp	Ser Trp Ala

485 490 495 Met Asn Met Tyr Arg Gly Gly Pro Ala Lys Ser Trp Trp Pro Xaa Gly 500 505 Leu Lys Thr Arg Lys Leu Ser 515 <210> 1681 <211> 371 <212> PRT <213> Homo sapiens <400> 1681 Val Pro Cys Tyr Arg Arg Val Phe Ile Val Ser Ser Ser Gln Leu Gly 10 Glu Gln Leu Lys Gln Leu Val Pro Ala Ser Gly Leu Thr Val Met Asp Leu Glu Ala Glu Gly Thr Cys Leu Arg Phe Ser Pro Leu Met Thr Ala 35 40 Ala Val Leu Gly Thr Arg Gly Glu Asp Val Asp Gln Leu Val Ala Cys Ile Glu Ser Lys Leu Pro Val Leu Cys Cys Thr Leu Gln Leu Arg Glu Glu Phe Lys Gln Glu Val Glu Ala Thr Ala Gly Leu Leu Tyr Val Asp 90 Asp Pro Asn Trp Ser Gly Ile Gly Val Val Arg Tyr Glu His Ala Asn 100 105 Asp Asp Lys Ser Ser Leu Lys Ser Asp Pro Glu Gly Glu Asn Ile His Ala Gly Leu Leu Lys Lys Leu Asn Glu Leu Glu Ser Asp Leu Thr Phe 135

Ala Thr Ala Arg Glu Ile Glu Glu Asn Ser Arg Leu Leu Glu Asn Met 180 185 190

Lys Ile Gly Pro Glu Tyr Lys Ser Met Lys Ser Cys Leu Tyr Val Gly

Met Ala Ser Asp Asn Val Asp Ala Ala Glu Leu Val Glu Thr Ile Ala

170

150

165

Thr Glu Val Val Arg Lys Gly Ile Gln Glu Ala Gln Val Glu I 195 200 205	Leu Gln
Lys Ala Ser Glu Glu Arg Leu Leu Glu Glu Gly Val Leu Arg C 210 215 220	31n Ile
Pro Val Val Gly Ser Val Leu Asn Trp Phe Ser Pro Val Gln A 225 230 235	Ala Leu 240
Gln Lys Gly Arg Thr Phe Asn Leu Thr Ala Gly Ser Leu Glu S $245 \ \ 250 \ \ 2$	Ser Thr 255
Glu Pro Ile Tyr Val Tyr Lys Ala Gln Gly Ala Gly Val Thr L 260 265 270	leu Pro
Pro Thr Pro Ser Gly Ser Arg Thr Lys Gln Arg Leu Pro Gly G 275 280 285	ln Lys
Pro Phe Lys Arg Ser Leu Arg Gly Ser Asp Ala Leu Ser Glu T 290 295 300	hr Ser
Ser Val Ser His Ile Glu Asp Leu Glu Lys Val Glu Arg Leu S 305 310 315	Ser Ser 320
Gly Pro Glu Gln Ile Thr Leu Glu Ala Ser Ser Thr Glu Gly H $$325$$	lis Pro
Gly Ala Pro Ser Pro Gln His Thr Asp Gln Thr Glu Ala Phe G 340 345	iln Lys
Gly Val Pro His Pro Glu Asp Asp His Ser Gln Val Glu Gly P 355 365	ro Glu
Ser Leu Arg 370	
<210> 1682 <211> 238	

<220>
<221> SITE
<222> (2)
<223> Xaa equ

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<212> PRT <213> Homo sapiens

<222> (69) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (145) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (215) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (228) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1682 Ser Xaa Arg Gly Thr Ser Pro Ser Glu Phe Tyr Phe Met Phe Gln Gln Val Arg Val Lys Pro Gln Asp Phe Ala Ala Ile Thr Ile Pro Arg Ser 20 25 30 Arg Gly Glu Ala Arg Val Gly Ala Gly Phe Arg Pro Met Leu Pro Ser Gln Gly Ala Pro Gln Arg Pro Leu Ser Thr Phe Ser Pro Ala Pro Lys Ala Thr Leu Ile Xaa Asn Ser Ile Gly Ser Leu Ser Lys Leu Arg Pro 65 70 75 Gln Pro Leu Thr Phe Ser Pro Ser Trp Gly Gly Pro Lys Ser Leu Pro 85 90 Val Pro Ala Pro Pro Gly Glu Met Gly Thr Thr Pro Ser Ala Pro Pro 105 Gln Arg Asn Arg Arg Lys Ser Val His Arg Val Leu Ala Glu Leu Asp 120 Asp Glu Ser Glu Pro Pro Glu Asn Pro Pro Pro Val Leu Met Glu Pro 130 135 Xaa Lys Lys Leu Arg Val Asp Lys Ala Pro Leu Thr Pro Thr Gly Asn 145 150 155 Arg Arg Gly Arg Pro Arg Lys Tyr Pro Val Ser Ala Pro Met Ala Pro

```
Pro Ala Val Gly Gly Glu Pro Cys Ala Ala Pro Cys Cys Cys Leu
 Pro Gln Glu Glu Thr Val Ala Trp Val Gln Cys Asp Gly Cys Asp Val
        195
                           200
Trp Phe His Val Ala Cys Xaa Gly Cys Ser Ile Gln Ala Ala Arg Glu
Ala Asp Phe Xaa Cys Pro Gly Cys Arg Ala Gly Ile Gln Thr
                  230
<210> 1683
<211> 66
<212> PRT
<213> Homo sapiens
<400> 1683
Met Ile Ala Thr Glu Thr Gln Ser Ser Phe Phe Ala Arg Val Phe Trp
                                    10
Gly Phe Cys Pro Lys Ile Tyr Pro Gly His Ser Ile Thr Ala Val Leu
                        25
Asp Val Tyr Pro Lys Leu Pro His His Pro Ser Thr His Ser Cys Thr
Phe Ile Tyr Leu Phe Cys Ser Ser Leu Gly Asp Arg Val Arg Leu Arg
                        55
Leu Gly
65
<210> 1684
<211> 119
<212> PRT
<213> Homo sapiens
<400> 1684
Trp Pro Leu Glu Phe Val Trp Pro Pro Pro Arg Glu Arg Glu Pro Gly
Asn Phe Ser Thr Glu Lys Gly Glu Ala Phe Gly Leu Cys Arg Val Arg
            20
Val Ser Lys Cys Pro Ala Pro Ala Gly Met Glu Asp Pro Gln Ser Lys
```

35 40 45

Glu Pro Ala Gly Glu Ala Val Ala Leu Ala Leu Leu Glu Ser Pro Arq 55

Pro Glu Gly Gly Glu Glu Pro Pro Arg Pro Ser Pro Glu Glu Thr Gln

Gln Cys Lys Phe Asp Gly Gln Glu Thr Lys Gly Ser Lys Phe Ile Thr 85 90

Ser Ser Ala Ser Asp Phe Ser Asp Pro Val Tyr Lys Glu Ile Ala Ile 100 105

Thr Asn Gly Cys Ile Asn Arg 115

<210> 1685

<211> 91

<212> PRT

<213> Homo sapiens

<400> 1685

Ile Val Phe Leu Pro Glu Asp Ser Tyr Leu His Val Ser Gln Gly Leu 10

Gln Phe Phe Tyr Lys Phe Pro Tyr Pro Lys Phe Arg Ile His Val Lys

Tyr Phe Phe Gly Ala Lys Val Leu His Ser Trp Tyr Leu Leu Asp Trp 35

Lys Ser Val Ala Arg Cys Cys Leu Lys Leu Pro Tyr Cys Phe Phe Ile 55

Leu Tyr Leu Ala Leu Trp Leu Leu Asn Phe Leu Phe Leu Phe Glu Val

Ser Phe Lys Phe Ala Pro Met Leu Asn Tyr Leu 85

<210> 1686 <211> 141

<212> PRT

<213> Homo sapiens

<400> 1686

Glu Ala Val Ala Glu Val Ser Ser Leu Phe Pro Arg Leu Phe Gln Ile 1 5 10 15

Phe Val Ile Ala Val Val Ser Leu Val Ile Leu Pro Arg Ile Val Ile 20 25 30

Phe Arg Arg Met Ala Cys Tyr Asn Cys Gly Arg Gly Gly His Ile Ala $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Gly Lys Pro Gly His Leu Ala Arg Asp Cys Asp His Ala Asp Glu 65 70 75 80

Gln Lys Cys Tyr Ser Cys Gly Glu Phe Gly His Ile Gln Lys Asp Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Thr Lys Val Lys Cys Tyr Arg Cys Gly Glu Thr Gly His Val Ala Ile 100 105 110

Asn Cys Ser Lys Thr Ser Glu Val Asn Cys Tyr Arg Cys Gly Glu Ser 115 120 125

Gly His Leu Ala Arg Glu Cys Thr Ile Glu Ala Thr Ala 130 135 140

<210> 1687

<211> 83

<212> PRT

<213> Homo sapiens

<400> 1687

Phe Trp Ile Pro Trp Trp Arg Lys Ile Lys His Ser Gly Leu Ala Ala 1 5 10 15

Asn Asp Ala Ser Val Thr Ala Gly Val Phe Met Ser Ser Arg Gly His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ser Thr Leu Pro Arg Thr Leu Met Ala Pro Arg Met Ile Ser Glu Gly $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Gly Ser Val Ala Ser Asn Arg His Leu Leu Gln Ala Arg Gly His His 65 70 75 80

Leu His Cys

<211> 153 <212> PRT <213> Homo sapiens <400> 1688 Arg Arg His Pro Ala Val Val Ala Glu Val Ser Pro Ala Tyr Phe Leu Phe Pro Ser Glu Arg Ala Ala Leu Ala Ala Cys Ala Ala Met Ala Lys Ile Lys Ala Arg Asp Leu Arg Gly Lys Lys Glu Glu Leu Leu Lys Gln Leu Asp Asp Leu Lys Val Glu Leu Ser Gln Leu Arg Val Ala Lys Val Thr Gly Gly Ala Ala Ser Lys Leu Ser Lys Ile Arg Val Val 75 65 70 Arg Lys Ser Ile Ala Arg Val Leu Thr Val Ile Asn Gln Thr Gln Lys Glu Asn Leu Arg Lys Phe Tyr Lys Gly Lys Lys Tyr Lys Pro Leu Asp 105 Leu Arg Pro Lys Lys Thr Arg Ala Met Arg Arg Arg Leu Asn Lys His 115 Glu Glu Asn Leu Lys Thr Lys Lys Gln Gln Arg Lys Glu Arg Leu Tyr 130 135 140 Pro Leu Arg Lys Tyr Ala Val Lys Ala

<210> 1689 <211> 130 <212> PRT <213> Homo sapiens

145

<210> 1688

<400> 1689
Gly Gly Gly Asp Ala Glu Met Gly Ala Ala Ala Ala Glu Ala Asp Arg
1 5 10 15

Thr Leu Phe Val Gly Asn Leu Glu Thr Lys Val Thr Glu Glu Leu Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Glu Leu Phe His Gln Ala Gly Pro Val Ile Lys Val Lys Ile Pro \$35\$ \$40\$ \$45\$

Lys Asp Lys Asp Gly Lys Pro Lys Gln Phe Ala Phe Val Asn Phe Lys 50 55 60

His Glu Val Ser Val Pro Tyr Ala Met Asn Leu Leu Asn Gly Ile Lys 65 70 75 80

Leu Tyr Gly Arg Pro Ile Lys Ile Gln Phe Arg Ser Gly Ser Ser His 85 90 95

Ala Pro Gln Asp Val Ser Leu Ser Tyr Pro Gln His His Val Gly Asn 100 105 110

Ser Ser Pro Thr Ser Thr Ser Pro Ser Ala Gly Thr Lys Gly Leu Trp \$115\$

Ile Thr 130

<210> 1690

<211> 172

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1690

Arg Pro Ser Leu Glu Val Leu Phe Thr Val Ile Leu Thr Lys Ile Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Tyr Cys Pro Pro Glu Tyr Gln Val Leu Gly Asp Thr Ser Ser Cys \$20\$ \$25\$ \$30

Cys Leu Gln Ser Ser Tyr Gln Glu Ala Arg Cys Thr Gly Phe Leu Trp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Leu Gln Glu Pro Pro Thr Leu Ser Val Phe Trp Pro Arg Ser Gly 50 60

Val Asn Pro Leu Val Ser Ala Phe Glu Leu Asp Thr Cys Ala Phe Ser 65 70 75 80 Ser Val Asn Thr Ala Leu Phe Gly Gly Val Ser Ser Ser Pro Gln Pro 85 90 95

Glu Leu Leu Asn Ser Lys Pro Lys Leu Val Ser Ala Glu Xaa Arg Phe 100 105 110

Gln Asp Ser Pro Val Ser Ile Cys Gly Asp Leu Gln Ile Arg Gln Ser 115 120 125

Ser Phe Pro Ala Ser Gly Val Leu Ala Pro Glu Pro Ser Leu Arg Leu 130 135 140

Val Leu Leu Asp Val Leu Ile Ser Asp His Tyr Pro Pro Tyr Ala Ser 145 150 155 160

His Arg Pro Arg Glu Asn Arg His Gln Asn Leu Gly
165 170

<210> 1691

<211> 272

<212> PRT

<213> Homo sapiens

<400> 1691

Asn Ser Arg Val His Pro Arg Arg Pro Val Thr Ala Glu Lys Met Ala 1 5 10 15

Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg Leu Ser 20 25 30

Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu Ser Ala 35 40 45

Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro $50 \hspace{1cm} 55$

Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val 65 70 75 80

Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg 85 90 95

Ser Met Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly Pro Glu 100 105 110

Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu Glu Arg l15 120 125

Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp Ser Asn 130 135 140

Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu Lys Tyr 145 150 150 160

Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg Tyr Thr 165 170 175

Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr Lys Gln 180 185 190

Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met Arg Arg 195 \$200\$

Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe Ser Glu 210 215 220

Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln Arg Ala 225 \$230\$ 235 \$240

Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro Glu Glu Gln Pro Val $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu Asn Lys Lys Asp Lys 260 265 270

<210> 1692

<211> 366

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1692

Gly Lys Arg Thr Gly Arg Ala Xaa Ala Ser Ser Gly Arg Arg Gly Glu 1 5 10 15

Gly Gly Trp Trp Arg Leu Pro Arg Ser Pro Ser Leu Pro Ala Val Pro 20 25 30

Thr Pro Gly Thr Met Phe Pro Ala Gly Pro Pro Ser His Ser Leu Leu 35 40 45

Arg	Leu 50		Leu	Leu	Gln	Leu 55		Leu	Leu	Val	Val 60		Ala	Val	Gly
Arg 65	Gly	Leu	Gly	Arg	Ala 70	Ser	Pro	Ala	Gly	Gly 75		Leu	Glu	Asp	Val 80
Val	Ile	Glu	Arg	Tyr 85	His	Ile	Pro	Arg	Ala 90		Pro	Arg	Glu	Val 95	Gln
Met	Gly	Asp	Phe 100	Val	Arg	Tyr	His	Tyr 105		Gly	Thr	Phe	Glu 110	Asp	Gly
Lys	Lys	Phe 115	Asp	Ser	Ser	Tyr	Asp 120	Arg	Asn	Thr	Leu	Val 125	Ala	Ile	Val
Val	Gly 130	Val	Gly	Arg	Leu	Ile 135	Thr	Gly	Met	Asp	Arg 140	Gly	Leu	Met	Gly
Met 145	Cys	Val	Asn	Glu	Arg 150	Arg	Arg	Leu	Ile	Val 155	Pro	Pro	His	Leu	Gly 160
Tyr	Gly	Ser	Ile	Gly 165	Leu	Ala	Gly	Leu	Ile 170	Pro	Pro	Asp	Ala	Thr 175	Leu
Tyr	Phe	Asp	Val 180	Val	Leu	Leu	Asp	Val 185	Trp	Asn	Lys	Glu	Asp 190	Thr	Val
Gln	Val	Ser 195	Thr	Leu	Leu	Arg	Pro 200	Pro	His	Cys	Pro	Arg 205	Met	Val	Gln
Asp	Gly 210	Asp	Phe	Val	Arg	Tyr 215	His	Tyr	Asn	Gly	Thr 220	Leu	Leu	Asp	Gly
Thr 225	Ser	Phe	Asp	Thr	Ser 230	Tyr	Ser	Lys	Gly	Gly 235	Thr	Tyr	Asp	Thr	Tyr 240
Val	Gly	Ser	Gly	Trp 245	Leu	Ile	Lys	Gly	Met 250	Asp	Gln	Gly	Leu	Leu 255	Gly
Met	Cys	Pro	Gly 260	Glu	Arg	Arg	Lys	11e 265	Ile	Ile	Pro	Pro	Phe 270	Leu	Ala
Tyr	Gly	Glu 275	Lys	Gly	Tyr	Gly	Glu 280	Gly	Gly	Gln	Gly	His 285	Lys	Gly	Lys
	Arg 290	Arg	Arg	G1y		Asn 295	Gln	Ala	Ser	Thr	Tyr 300	Ser	Cys	Ser	Gly
Cys 305	lle	Leu	His		Gly 310	Ile	Gln	Pro	Arg	Thr 315	Gln	Gly	Gly	Met	Lys 320

Ser Thr Leu Gly Ala Thr Lys Lys Gly Cys Phe Gly Arg Ala Trp Trp 325 330 335

Leu Thr Leu Val Ile Pro Ala Leu Trp Glu Ala Lys Ala Gly Gly Ser 340 345 350

Arg Gly Gln Glu Ile Glu Thr Thr Val Lys Pro Arg Leu Tyr 355 360 365

<210> 1693

<211> 361

<212> PRT

<213> Homo sapiens

<400> 1693

Leu Pro Gln Ser Arg Trp Asn Lys Ser Ser Thr Pro Asp Gly Val Pro $1 \ \ \, 1$

Thr Leu Cys Cys Arg Asn Glu Ala Arg Gln Gln Ile Ser Ile Ser Arg 20 25 30

Met Trp Gly Leu Lys Val Leu Leu Leu Pro Val Val Ser Phe Ala Leu $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

His Arg Lys Gln Tyr Asn Asn Lys Val Asp Glu Ile Ser Arg Arg Leu 65 70 75 80

Ile Trp Glu Lys Asn Leu Lys Tyr Ile Ser Ile His Asn Leu Glu Ala 85 90 95

Ser Leu Gly Val His Thr Tyr Glu Leu Ala Met Asn His Leu Gly Asp $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Met Thr Ser Glu Glu Val Val Gln Lys Met Thr Gly Leu Lys Val Pro 115 120 125

Leu Ser His Ser Arg Ser Asn Asp Thr Leu Tyr Ile Pro Glu Trp Glu 130 $$135\$

Gly Arg Ala Pro Asp Ser Val Asp Tyr Arg Lys Lys Gly Tyr Val Thr 145 150 155 160

Pro Val Lys Asn Gln Gly Gln Cys Gly Ser Cys Trp Ala Phe Ser Ser 165 170 175

Val Gly Ala Leu Glu Gly Gln Leu Lys Lys Lys Thr Gly Lys Leu Leu

Asn Leu Ser Pro Gln Asn Leu Val Asp Cys Val Ser Glu Asn Asp Gly 200

Cys Gly Gly Gly Tyr Met Thr Asn Ala Phe Gln Tyr Val Gln Lys Asn 210 220 215

Arg Gly Ile Asp Ser Glu Asp Ala Tyr Pro Tyr Val Gly Gln Glu Glu 230 235

Ser Cys Met Tyr Asn Pro Thr Gly Lys Ala Ala Lys Cys Arg Gly Tyr 250

Arg Glu Ile Pro Glu Gly Asn Glu Lys Ala Leu Lys Arg Ala Val Ala 260

Arg Val Gly Pro Val Ser Val Ala Ile Asp Ala Ser Leu Thr Ser Phe 275 280

Gln Phe Tyr Ser Lys Gly Val Tyr Tyr Asp Glu Ser Cys Asn Ser Asp

Asn Leu Asn His Ala Val Leu Ala Val Gly Tyr Gly Ile Gln Lys Gly 310 315

Asn Lys His Trp Ile Ile Lys Asn Ser Trp Gly Glu Asn Trp Gly Asn 325

Lys Gly Tyr Ile Leu Met Ala Arg Asn Lys Asn Asn Ala Cys Gly Ile 340 345

Ala Asn Leu Ala Ser Phe Pro Lys Met 355

<210> 1694

<211> 282

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1694

Pro Arg Val Arg Arg Gly Pro Arg Val Ser Ser Met Ala Ser Ala Asp 10

Ser Arg Arg Xaa Ala Asp Gly Gly Gly Ala Gly Gly Thr Phe Gln Pro Tyr Leu Asp Thr Leu Arg Gln Glu Leu Gln Gln Thr Asp Pro Thr Leu 40 Leu Ser Val Val Val Ala Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser Gly Lys Thr Leu Leu Phe Val Arg Leu Leu 85 90 Thr Gly Leu Tyr Arg Asp Thr Gln Thr Ser Ile Thr Asp Ser Cvs Ala 105 Val Tyr Arg Val Asn Asn Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp 120 Leu Pro Gly His Glu Ser Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys 130 135 Ser Ser Ala Arg Ala Ile Val Phe Val Val Asp Ser Ala Ala Phe Gln 150 155 Arg Glu Val Lys Asp Val Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp 170 Ser Met Gly Leu Lys Asn Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys 180 185 Gln Asp Ile Ala Met Ala Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu 195 200 Glu Lys Glu Leu Asn Thr Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly 230 235 Lys Glu Phe Glu Phe Ser Gln Leu Pro Leu Lys Val Glu Phe Leu Glu 245 250 Cys Ser Ala Lys Gly Gly Arg Gly Asp Val Gly Ser Ala Asp Ile Gln 260 265

Asp Leu Glu Lys Trp Leu Ala Lys Ile Ala

<210> 1695 <211> 232 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (113) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1695 Gly Val Asp Thr Ser Pro Phe Ala Lys Ser Leu Gly His Ser Arg Gly Glu Ala Asp Leu Phe Asp Ser Gly Asp Ile Phe Ser Thr Gly Thr Gly Ser Gln Ser Val Glu Arg Thr Lys Pro Lys Ala Lys Ile Ala Glu Asn Pro Ala Asn Pro Pro Val Gly Gly Lys Ala Lys Ser Pro Met Phe Pro Ala Leu Gly Glu Ala Ser Ser Asp Asp Leu Phe Gln Ser Ala Lys 75 Pro Lys Pro Ala Lys Lys Thr Asn Pro Phe Pro Leu Leu Glu Asp Glu 85 Asp Asp Leu Phe Thr Asp Gln Lys Val Lys Lys Asn Glu Thr Lys Ser Xaa Ser Gln Gln Asp Val Ile Leu Thr Thr Gln Asp Ile Phe Glu Asp 120 Asp Ile Phe Ala Thr Glu Ala Ile Lys Pro Ser Gln Lys Thr Arg Glu 130 135 140 Lys Glu Lys Thr Leu Glu Ser Asn Leu Phe Asp Asp Asn Ile Asp Ile 145 150 Phe Ala Asp Leu Thr Val Lys Pro Lys Glu Lys Ser Lys Lys Val 170 Glu Ala Lys Ser Ile Phe Asp Asp Asp Met Asp Asp Ile Phe Ser Ser

180 185 190
Gly Ile Gln Ala Lys Thr Thr Lys Pro Lys Ser Arg Ser Ala Gln Ala

195 200 205

Ala Pro Glu Pro Arg Phe Glu His Lys Val Ser Asn Ile Phe Asp Asp 210 215 220

Pro Leu Asn Ala Phe Gly Gly Gln

225 230

<210> 1696

<211> 123

<212> PRT

<213> Homo sapiens

<400> 1696

Arg Gly Gly Ser Pro Glu Val Ser Gly Asn Gly Ala Ala Leu Phe Glu 1 5 10 15

Met Phe Ser Tyr Leu Ile Leu Cys Pro Ser Arg Gly Ser Ser Leu Ile $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Cys Leu Ala Trp Pro Cys Val Pro Pro Val Pro Cys Ser Thr Ala Tyr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Val Pro Gln Val Leu Leu Ala Thr Pro Ala Val Thr Leu Asn Ser

Phe Asn Ser Ala Leu Asn Ala Pro Ala Ser Glu Ala Cys Pro Ile Ser

Cys Arg Arg Leu Arg Gly Glu Ser Phe Leu Trp Leu Pro Leu Arg $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Leu Glu Leu Glu Glu Asn Leu Ile Phe Cys Ile 115 120

<210> 1697

<211> 272

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (256)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (258) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (262) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (263) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (267) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1697 Pro Ala Pro Ala Ala His Val Ala Gly Asn Pro Gly Gly Asp Ala Ala 1 10 Pro Ala Ala Thr Gly Thr Ala Ala Ala Ser Leu Ala Thr Ala Ala Gly Ser Glu Asp Ala Glu Lys Lys Val Leu Ala Thr Lys Val Leu Gly Thr Val Lys Trp Phe Asn Val Arg Asn Gly Tyr Gly Phe Ile Asn Arg 50 55 Asn Asp Thr Lys Glu Asp Val Phe Val His Gln Thr Ala Ile Lys Lys 65 70 75 Asn Asn Pro Arg Lys Tyr Leu Arg Ser Val Gly Asp Gly Glu Thr Val Glu Phe Asp Val Val Glu Gly Glu Lys Gly Ala Glu Ala Ala Asn Val 100 105 Thr Gly Pro Asp Gly Val Pro Val Glu Gly Ser Arg Tyr Ala Ala Asp 115 Arg Arg Arg Tyr Arg Arg Gly Tyr Tyr Gly Arg Arg Arg Gly Pro Pro 135 Arg Asn Ala Gly Glu Ile Gly Glu Met Lys Asp Gly Val Pro Glu Gly 150 155

Ala Gln Leu Gln Gly Pro Val His Arg Asn Pro Thr Tyr Arg Pro Arg 165 170 175

Tyr Arg Ser Arg Gly Pro Pro Arg Pro Arg Pro Ala Pro Ala Val Gly
180 185 190

Glu Ala Glu Asp Lys Glu Asn Gln Gln Ala Thr Ser Gly Pro Asn Gln 195 200 205

Pro Ser Val Arg Arg Gly Tyr Arg Arg Pro Tyr Asn Tyr Arg Arg Arg 210 215 220

Pro Arg Pro Pro Asn Ala Pro Ser Gln Asp Gly Lys Glu Ala Lys Ala 225 \$230\$

Gly Glu Ala Pro Thr Glu Asn Pro Ala Pro Pro Thr Ser Arg Ala Xaa 245 250 255

Leu Xaa Asn Thr Arg Xaa Xaa Arg His Leu Xaa His Arg Gln Val Thr \$260\$ \$265\$ \$270\$

<210> 1698

<211> 88

<212> PRT

<213> Homo sapiens

<400> 1698

Arg Glu Thr Ala Cys Cys Gly Arg Asp Ala Arg Gly Ala Ala Pro Ala 1 5 10 15

Ala Met Ala Val Thr Ala Leu Ala Ala Arg Thr Trp Leu Gly Val Trp
20 25 30

Gly Val Arg Thr Met Gln Ala Arg Gly Phe Gly Ser Asp Gln Ser Glu 35 40 45

Asn Val Asp Arg Gly Ala Gly Ser Ile Arg Glu Ala Gly Gly Ala Phe 50 60

Gly Lys Arg Glu Gln Ala Glu Glu Glu Arg Tyr Phe Arg His Tyr Arg 65 70 75 80

Leu Cys Phe Glu Ile Ser Leu Gly 85

<210> 1699 <211> 223 <212> PRT <213> Homo sapiens <400> 1699 Cys Cys Ser Glu Gln Gln Arg Ile Ser Lys Asp Leu Ala Asn Ile Cys 5 10 Lys Thr Ala Ala Thr Ala Gly Ile Ile Gly Trp Val Tyr Gly Gly Ile 20 Pro Ala Phe Ile His Ala Lys Gln Gln Tyr Ile Glu Gln Ser Gln Ala Glu Ile Tyr His Asn Arg Phe Asp Ala Val Gln Ser Ala His Arg Ala Ala Thr Arg Gly Phe Ile Arg Tyr Gly Trp Arg Trp Gly Trp Arg Thr Ala Val Phe Val Thr Ile Phe Asn Thr Val Asn Thr Ser Leu Asn Val 90 Tyr Arg Asn Lys Asp Ala Leu Ser His Phe Val Ile Ala Gly Ala Val 105 Thr Gly Ser Leu Phe Arg Ile Asn Val Gly Leu Arg Gly Leu Val Ala 115 Gly Gly Ile Ile Gly Ala Leu Leu Gly Thr Pro Val Gly Gly Leu Leu Met Ala Phe Gln Lys Tyr Ser Gly Glu Thr Val Gln Glu Arg Lys Gln 150 155 Lys Asp Arg Lys Ala Leu His Glu Leu Lys Leu Glu Glu Trp Lys Gly 170 175

Gin Glu Asp Glu Pro Glu Asn Asp Ala Lys Lys Ile Glu Ala Leu Leu 195 200 205 Asn Leu Pro Arg Asn Pro Ser Val Ile Asp Lys Gln Asp Lys Asp

220

215

Arg Leu Gln Val Thr Glu His Leu Pro Glu Lys Ile Glu Ser Ser Leu

180

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<210> 1700
 <211> 543
 <212> PRT
 <213> Homo sapiens
<220>
<221> SITE
<222> (264)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (269)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (279)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1700
Ala Arg Ala Arg Leu Thr Cys Pro Arg Arg Gly Pro Trp Glu Ala
                  5
                                     10
                                                         15
Gly Ser Arg Ala Thr Val Ser Leu Thr Arg Leu Ala Leu Gly Val Pro
Gly Pro Arg Glu His Pro Gly Gln Pro Glu Asp Ser Pro Glu Ala Glu
                             40
Ala Ser Thr Leu Asp Val Phe Thr Glu Arg Leu Pro Pro Ser Gly Arg
     50
                        55
Ile Thr Lys Thr Glu Ser Leu Val Ile Pro Ser Thr Arg Ser Glu Gly
65
                    70
                                        75
Lys Gln Ala Gly Arg Arg Gly Arg Ser Thr Ser Leu Lys Glu Arg Gln
Ala Ala Arg Pro Gln Asn Glu Arg Ala Asn Ser Leu Asp Asn Glu Arg
           100
                               105
Cys Pro Asp Ala Arg Ser Gln Leu Gln Ile Pro Arg Lys Thr Val Tyr
        115
                           120
Asp Gln Leu Asn His Ile Leu Ile Ser Asp Asp Gln Leu Pro Glu Asn
                       135
                                            140
Ile Ile Leu Val Asn Thr Ser Asp Trp Gln Gly Gln Phe Leu Ser Asp
145
                   150
                                      155
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	_														
Val	Leu	GIn	Arg	165		Leu	Pro	Val	Val 170		Thr	Cys	Ser	Pro 175	Ala
Asp	Val	Gln	Ala 180	Ala	Phe	Ser	Thr	11e 185	Val	Ser	Arg	Ile	Gln 190	Arg	Tyr
Cys	Asn	Cys 195	Asn	Ser	Gln	Pro	Pro 200	Thr	Pro	Val	Lys	Ile 205	Ala	Val	Ala
Gly	Ala 210		His	Tyr	Leu	Ser 215	Ala	Ile	Leu	Arg	Leu 220	Phe	Val	Glu	Gln
Leu 225	Ser	His	Lys	Thr	Pro 230	Asp	Trp	Leu	Gly	Tyr 235		Arg	Phe	Leu	Val 240
Ile	Pro	Leu	Gly	Ser 245	His	Pro	Val	Ala	Arg 250	Tyr	Leu	Gly	Ser	Val 255	Asp
Tyr	Arg	туr	Asn 260	Asn	Phe	Phe	Xaa	Asp 265	Leu	Ala	Trp	Xaa	Asp 270	Leu	Phe
Asn	Lys	Leu 275	Glu	Ala	Gln	Xaa	Ala 280	Val	Gln	Asp	Thr	Pro 285	Asp	Ile	Val
Ser	Arg 290	Ile	Thr	Gln	Tyr	11e 295	Ala	Gly	Ala	Asn	Cys 300	Ala	His	Gln	Leu
Pro 305	Ile	Ala	Glu	Ala	Met 310	Leu	Thr	Tyr	Lys	Gln 315	Lys	Ser	Pro	Asp	Glu 320
Glu	Ser	Ser	Gln	Lys 325	Phe	Ile	Pro	Phe	Val 330	Gly	Val	Val	Lys	Val 335	Gly
Ile	Val	Glu	Pro 340	Ser	Ser	Ala	Thr	Ser 345	Gly	Asp	Ser	Asp	Asp 350	Ala	Ala
Pro	Ser	Gly 355	Ser	Gly	Thr	Leu	Ser 360	Ser	Thr	Pro	Pro	Ser 365	Ala	Ser	Pro
Ala	Ala 370	Lys	Glu	Ala	Ser	Pro 375	Thr	Pro	Pro	Ser	Ser 380	Pro	Ser	Val	Ser
Gly 385	Gly	Leu	Ser	Ser	Pro 390	Ser	Gln	Gly	Val	Gly 395	Ala	Glu	Leu	Met	Gly 400
Leu	Gln	Val	Asp	Tyr 405	Trp	Thr	Ala		Gln 410	Pro	Ala	Asp	Arg	Lys 415	Arg
Asp	Ala	Glu	Lys 420	Lys	Asp	Leu		Val 425	Thr	Lys	Asn	Thr	Leu 430	Lys	Cys

Thr Phe Arg Ser Leu Gln Val Ser Arg Leu Pro Ser Ser Gly Glu Ala 435 440 445

Ala Ala Thr Pro Thr Met Ser Met Thr Val Val Thr Lys Glu Lys Asn 450 455 460

Lys Lys Val Met Phe Leu Pro Lys Lys Ala Lys Asp Lys Asp Val Glu 465 470 475 480

Ser Lys Ser Gln Cys Ile Glu Gly Ile Ser Arg Leu Ile Cys Thr Ala 485 490 495

Arg Gln Gln Asn Met Leu Arg Val Leu Ile Asp Gly Val Glu Cys 500 505 510

Ser Asp Val Lys Phe Phe Gln Leu Ala Ala Gln Trp Ser Ser His Val 515 520 525

Lys His Phe Pro Ile Cys Ile Phe Gly His Ser Lys Ala Thr Phe 530 535 540

<210> 1701

<211> 71

<212> PRT

<213> Homo sapiens

<400> 1701

Ile Pro Ser Tyr Thr Ile Lys Cys Ser Ile Gly Arg Gln Ser Val Ser 1 $$1 \ \ \, $$

Phe Phe Tyr Val Tyr Cys Leu Cys Gly Val Lys Tyr Lys Ala Leu 20 25 30

Gly Cys Ile Thr Tyr Ser Lys Ala Val Thr Leu Ser Leu Ile Cys Cys $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Asp Pro Leu Lys Met Cys Trp Gly Leu Phe Cys Cys His Cys Leu Cys 50 55 60

Cys Trp Asn Leu Ala Leu Ser 65 70

<210> 1702

<211> 131

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (79) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1702

Glu His Val Phe Gly Phe Leu Phe Cys Val Ser Leu Leu Arg Ile Met $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ala Ser Ser Ser Asp Gly Ile Ser Leu Ser Tyr Arg Pro Val Val Thr \$20\$

Gly Gln Asp Arg Met Met Asp Thr Glu Val Leu Ser Leu Leu Ser Ser 35 40 45

Val Ala Leu Pro Ser Leu Leu Leu Ala Ser Glu Ser Phe Asp Ser Ile $50 \hspace{1cm} 55 \hspace{1cm} 60$

Tyr Pro Gly Ile Phe Cys Val Leu Met Phe Ser Ser Gly Leu Xaa Ser 65 70 75 80

Ala Val Leu Ile Gly Arg Ala Leu Ser Phe Gln Ala Ile Leu Lys Gly 85 90 95

Gly Gln Ser Lys Gly Gln Ser Leu Asn Pro Phe Cys Gly Leu Asn Asn 100 105 110

Leu Arg Ile Lys Ser Ser Val Leu Leu Ile Pro Val Leu Leu Cys Gln \$115\$

Thr Leu Ser 130

<210> 1703

<211> 330 <212> PRT

<213> Homo sapiens

<400> 1703

His Gly Asn Pro Asp Arg Pro Arg Gly Glu Glu Glu Gly Asp Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Gly Pro Ala Thr Leu Ser Ala Arg Leu Gly Ala Ser Ala Gly Ala 20 25 30

Met Thr Ser Leu Thr Gln Arg Ser Ser Gly Leu Val Gln Arg Arg Thr

Glu Ala Ser Arg Asn Ala Ala Asp Lys Glu Arg Ala Ala Gly Gly Gly Ala Gly Ser Ser Glu Asp Asp Ala Gln Ser Arg Arg Asp Glu Gln Asp Asp Asp Asp Lys Gly Asp Ser Lys Glu Thr Arg Leu Thr Leu Met Glu 85 Glu Val Leu Leu Gly Leu Lys Asp Arg Glu Gly Tyr Thr Ser Phe 105 Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Cys Met Leu Ile Glu 120 Leu Ala Leu Arg Gly Arg Leu Gln Leu Glu Ala Cys Gly Met Arg Arg 130 Lys Ser Leu Leu Thr Arg Lys Val Ile Cys Lys Ser Asp Ala Pro Thr 145 150 155 Gly Asp Val Leu Leu Asp Glu Ala Leu Lys His Val Lys Glu Thr Gln 170 Pro Pro Glu Thr Val Gln Asn Trp Ile Glu Leu Leu Ser Gly Glu Thr 185 Trp Asn Pro Leu Lys Leu His Tyr Gln Leu Arg Asn Val Arg Glu Arg 195 Leu Ala Lys Asn Leu Val Glu Lys Gly Val Leu Thr Thr Glu Lys Gln 215 220 Asn Phe Leu Leu Phe Asp Met Thr Thr His Pro Leu Thr Asn Asn Asn 235 Ile Lys Gln Arg Leu Ile Lys Lys Val Gln Glu Ala Val Leu Asp Lys 245 Trp Val Asn Asp Pro His Arg Met Asp Arg Arg Leu Leu Ala Leu Ile 260 Tyr Leu Ala His Ala Ser Asp Val Leu Glu Asn Ala Phe Ala Pro Leu 280 Leu Asp Glu Gln Tyr Asp Leu Ala Thr Lys Arg Val Arg Gln Leu Leu 290 295 300

Asp Leu Asp Pro Glu Val Glu Cys Leu Lys Ala Asn Thr Asn Glu Val

315

310

Leu Trp Ala Val Val Ala Ala Phe Thr Lys 325 <210> 1704 <211> 86 <212> PRT <213> Homo sapiens <400> 1704 Val Phe Ile Ser Ile Val Ser Leu Arg His Gly Lys Gly Arg Met Leu Lys Gln Val Met Phe Val Phe Ser Gly Met Gly Pro Arg Ser His Cys 25 Trp Gly Leu Pro Leu His Val Ala Pro Leu Cys Arg Pro Pro Gly Arg Leu Phe Pro Pro Ser Pro Thr Glu Ala Pro Arg Gly Leu Asn Arg Asn 50 55 60 Leu Ala Asn Gln Arg His Phe Phe Cys Pro Ser Ile Phe His Thr Cys Pro Thr Val Leu Phe Phe <210> 1705 <211> 17 <212> PRT <213> Homo sapiens <400> 1705 Phe Gly Glu Glu Met Ala Asp Ser Val Lys Thr Phe Leu Gln Asp 1 10 15 Leu <210> 1706 <211> 471

<220>

<212> PRT <213> Homo sapiens

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<221> SITE
 <222> (37)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
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 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (373)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (446)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1706
Ser Thr Pro Ser Gly Tyr Leu Glu Leu Pro Asp Leu Gly Gln Pro Tyr
                                     10
Ser Ser Ala Val Tyr Ser Leu Glu Glu Gln Tyr Leu Gly Leu Ala Leu
                                25
Asp Val Asp Arg Xaa Lys Lys Asp Xaa Glu Glu Glu Asp Gln Xaa
         35
                             40
Pro Pro Cys Pro Arg Leu Ser Arg Glu Leu Leu Glu Val Val Glu Pro
Glu Val Leu Gln Asp Ser Leu Asp Arg Cys Tyr Ser Thr Pro Ser Ser
                                         75
Cys Leu Glu Gln Pro Asp Ser Cys Gln Pro Tyr Gly Ser Ser Phe Tyr
                 85
                                                         95
Ala Leu Glu Glu Lys His Val Gly Phe Ser Leu Asp Val Gly Glu Ile
```

105

Glu	Lys	Lys 115		Lys	Gly	Lys	Lys 120		Arg	Gly	Arg	Arg 125	Ser	Lys	Lys
Glu	Arg 130	Arg	Arg	Gly	Arg	Lys 135		Gly	Glu	Glu	Asp 140		Asn	Pro	Pro
Cys 145	Pro	Arg	Leu	Ser	Arg 150		Leu	Leu	Asp	Glu 155	Lys	Gly	Pro	Glu	Val 160
Leu	Gln	Asp	Ser	Leu 165		Arg	Cys	Tyr	ser 170		Pro	Ser	Gly	Cys 175	Leu
Glu	Leu	Thr	Asp 180	Ser	Cys	Gln	Pro	Tyr 185	Arg	Ser	Ala	Phe	Tyr 190	Xaa	Leu
Glu	Gln	Gln 195	Arg	Val	Gly	Leu	Ala 200	Val	Asp	Met	Asp	Glu 205	Ile	Glu	Lys
Tyr	Gln 210	Glu	Val	Glu	Glu	Asp 215	Gln	Asp	Pro	Ser	Cys 220	Pro	Arg	Leu	Ser
Arg 225	Glu	Leu	Leu	Asp	Glu 230	Lys	Glu	Pro	Glu	Val 235	Leu	Gln	Asp	Ser	Leu 240
Asp	Arg	Cys	Tyr	Ser 245	Thr	Pro	Ser	Gly	туг 250	Leu	Glu	Leu	Pro	Asp 255	Leu
Gly	Gln	Pro	Tyr 260	Ser	Ser	Ala	Val	туг 265	ser	Leu	Glu	Glu	Gln 270	Tyr	Leu
Gly	Leu	Ala 275	Leu	Asp	Val	Asp	Arg 280	Ile	Lys	Lys	Asp	Gln 285	Glu	Glu	Glu
Glu	Asp 290	Gln	G1y	Pro	Pro	Cys 295	Pro	Arg	Leu	Ser	Arg 300	Glu	Leu	Leu	Glu
Val 305	Val	Glu	Pro	Glu	Va1 310	Leu	Gln	Asp	Ser	Leu 315	Asp	Arg	Cys	Tyr	Ser 320
Thr	Pro	Ser	Ser	Cys 325	Leu	Glu	Gln	Pro	Asp 330	Ser	Cys	Gln	Pro	туг 335	Gly
ser	Ser	Phe	туг 340	Ala	Leu	Glu	Glu	Lys 345	His	Val	Gly	Phe	Ser 350	Leu	Asp
Val	Gly	Glu 355	Ile	Glu	Lys	Lys	Gly 360	Lys	Gly	Lys	Lys	Arg 365	Arg	Gly	Arg
Arg	Ser 370	Lys	Lys	Xaa		Arg 375	Arg	Gly	Arg	Lys	Glu 380	Gly	Glu	Glu	Asp

Gln Asn Pro Pro Cys Pro Arg Leu Asn Gly Val Leu Met Glu Val Glu 385 390 395 400

Glu Pro Glu Val Leu Gln Asp Ser Leu Asp Arg Cys Tyr Ser Thr Pro \$405\$

Ser Met Tyr Phe Glu Leu Pro Asp Ser Phe Gln His Tyr Arg Ser Val 420 425 430

Phe Tyr Ser Phe Glu Glu Glu His Ile Ser Phe Ala Leu Xaa Val Asp 435 440 445

Met Gly Val Ile Phe Pro Gln 465 470

<210> 1707

<211> 250

<212> PRT <213> Homo sapiens

<400> 1707

Arg Glu Arg Asn Leu Gly Ala Pro Gly Ser Gly Leu Lys Ala Ala Arg

Gln Ser Arg Ala Val Leu Ala Pro Ala Arg Gly Ala Ala Ala Pro Gly 20 25 30

Val Ala Met Thr Ser Glu Leu Asp Ile Phe Val Gly Asn Thr Thr Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Ile Asp Glu Asp Val Tyr Arg Leu Trp Leu Asp Gly Tyr Ser Val Thr 50 55 60

Asp Ala Val Ala Leu Arg Val Arg Ser Gly Ile Leu Glu Gln Thr Gly 65 70 75 80

Ala Thr Ala Ala Val Leu Gln Ser Asp Thr Met Asp His Tyr Arg Thr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Phe His Met Leu Glu Arg Leu Leu His Ala Pro Pro Lys Leu His $100 \hspace{1.5cm} 105 \hspace{1.5cm} 105$

Gln Leu Ile Phe Gln Ile Pro Pro Ser Arg Gln Ala Leu Leu Ile Glu 115 120 125

Arg Tyr Tyr Ala Phe Asp Glu Ala Phe Val Arg Glu Val Leu Gly Lys

130 135 140 Lys Leu Ser Lys Gly Thr Lys Lys Asp Leu Asp Asp Ile Ser Thr Lys 145 150 155 Thr Gly Ile Thr Leu Lys Ser Cys Arg Arg Gln Phe Asp Asn Phe Lys 165 170 Arg Val Phe Lys Val Val Glu Glu Met Arg Gly Ser Leu Val Asp Asn 180 Ile Gln Gln His Phe Leu Leu Ser Asp Arg Leu Ala Arg Asp Tyr Ala 195 200 Ala Ile Val Phe Phe Ala Asn Asn Arg Phe Glu Thr Gly Lys Lys 215 Leu Gln Tyr Leu Ser Phe Gly Asp Phe Ala Phe Cys Ala Glu Leu Met 230 235 Ile Gln Asn Trp Thr Leu Trp Ser Arg Arg 245 <210> 1708 <211> 337 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (112) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (127) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (283) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1708

Phe	Leu	Thr 35		His	Ile	Asn	Leu 40		Lys	Thr	Leu	Cys 45		Val	Ile
Leu	Met 50		Gln	Glu	Arg	Lys 55		Pro	Ala	His	Arg 60		Val	Leu	Ala
Ala 65	Ala	Ser	His	Phe	Phe 70	Asn	Leu	Met	Phe	Thr 75		Asn	Met	Leu	Glu 80
Ser	Lys	Ser	Phe	G1u 85	Val	Glu	Leu	Lys	Asp 90	Ala	Glu	Pro	Asp	11e 95	
Glu	Gln	Leu	Val 100		Phe	Ala	Tyr	Thr 105	Ala	Arg	Ile	Ser	Val 110	Asn	Xaa
Asn	Asn	Val 115		Ser	Leu	Leu	Asp 120	Ala	Ala	Asn	Gln	Туг 125	Gln	Xaa	Glu
Pro	Val 130	Lys	Lys	Met	cys	Val 135	Asp	Phe	Leu	Lys	Glu 140	Gln	Val	Asp	Ala
Ser 145	Asn	Cys	Leu	Gly	Ile 150	Ser	Val	Leu	Ala	Glu 155	Cys	Leu	Asp	Cys	Pro 160
Glu	Leu	Lys	Ala	Thr 165	Ala	Asp	Asp	Phe	Ile 170	His	Gln	His	Phe	Thr 175	Glu
Val	Tyr	Lys	Thr 180	Asp	Glu	Phe	Leu	Gln 185	Leu	Asp	Val	Lys	Arg 190	Val	Thr
His	Leu	Leu 195	Asn	Gln	Asp	Thr	Leu 200	Thr	Val	Arg	Ala	Glu 205	Asp	Gln	Val
Tyr	Asp 210	Ala	Ala	Val	Arg	Trp 215	Leu	Lys	Tyr	Asp	Glu 220	Pro	Asn	Arg	Gln
Pro 225	Phe	Met	Val	Asp	Ile 230	Leu	Ala	Lys	Val	Arg 235	Phe	Pro	Leu	Ile	ser 240
Lys	Asn	Phe	Leu	Ser 245	Lys	Thr	Val	Gln	Ala 250	Glu	Pro	Leu	Ile	Gln 255	Asp
Asn	Pro	Glu	Cys 260	Leu	Lys	Met	Val	11e 265	Ser	Gly	Met		Tyr 270	His	Leu
Leu		Pro 275	Glu	Asp	Arg	Glu	Glu 280	Leu	Val	Xaa	Gly	Thr 285	Arg	Pro	Arg

Arg Lys Lys His Asp Tyr Arg Ile Ala Leu Phe Gly Gly Ser Gln Pro

295

Gln Ser Cys Arg Tyr Phe Asn Pro Lys Asp Tyr Ser Trp Thr Asp Ile 305 310 315 320

Arg Cys Pro Phe Glu Lys Arg Glu Met Gln His Ala Cys Phe Gly Thr 325 330 335

Met

<210> 1709

<211> 101

<212> PRT

<213> Homo sapiens

<400> 1709

Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp Asp 1 10 15

Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Trp
20 25 30

Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr 35 40 45

Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val $50 \\ 60$

Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His 65 70 75 80

Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys 85 90 95

Lys Val Arg Thr Thr 100

<210> 1710 <211> 124

<212> PRT <213> Homo sapiens

<400> 1710

Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly Ser 1 5 10 15

Pro Gly Leu Gln Glu Phe Gly Thr Arg Asn Leu Arg Lys Met Val Ala

30

20

2.5 Met Ala Ala Gly Pro Ser Gly Cys Leu Val Pro Ala Phe Gly Leu Arg 40

Leu Leu Leu Ala Thr Val Leu Gln Ala Val Ser Ala Phe Gly Ala Glu

Phe Ser Ser Glu Ala Cys Arg Glu Leu Gly Phe Ser Ser Asn Leu Leu

Cys Ser Ser Cys Asp Leu Leu Gly Gln Phe Asn Leu Leu Gln Leu Asp

Pro Asp Cys Arg Gly Cys Cys Gln Glu Glu Ala Gln Phe Glu Thr Lys 105 100

Lys Leu Tyr Ala Gly Ala Ile Leu Glu Val Cys Gly

<210> 1711

<211> 98

<212> PRT

<213> Homo sapiens

<400> 1711

Gly His Ala Ser Phe Arg Ala Phe Ser Phe Pro Pro Ser Ile Ser Asn 10

Leu Gly Met Phe Gly Ile Asp Glu Phe Thr Ala Val Ile Asn Pro Pro

Gln Ala Cys Ile Leu Ala Val Gly Arg Phe Arg Pro Val Leu Lys Leu 35 40

Thr Glu Asp Glu Glu Gly Asn Ala Lys Leu Gln Gln Arg Gln Leu Ile

Thr Val Thr Met Ser Ser Asp Ser Arg Val Val Asp Asp Glu Leu Ala

Thr Arg Phe Leu Lys Ser Phe Lys Ala Asn Leu Glu Asn Pro Ile Arg 85 90

Leu Ala

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<210> 1712
<211> 100
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Ile Lys Gly Pro Trp Thr Glu Ser Cys Leu Gly Gly Pro Ser Gly
                                     10
Met Gly Xaa Gly His Thr Ser Leu Ala Ile Ser Gln Gln Asp Gln Ser
             20
Lys Leu Tyr His Leu Pro Pro Pro Thr Val Gly Pro His Ser Ile Ala
                            40
Ser Pro Pro Glu Asp Arg Thr Val Lys Asp Ser Thr Pro Ser Ser Leu
     50
Asp Ser Asp Pro Leu Met Ala Met Leu Leu Lys Leu Gln Glu Ala Ala
Asn Tyr Ile Glu Ser Pro Asp Arg Glu Thr Ile Leu Asp Pro Asn Leu
Gln Ala Thr Leu
            100
<210> 1713
<211> 66
<212> PRT
<213> Homo sapiens
<400> 1713
Pro Ile Phe Ile Glu Tyr Phe Leu His Val Gln Leu His Pro Leu Cys
```

Lys Asp Tyr Met Asn Ile Ala His Ser Leu Leu Val Ser Gln Thr His
20 25 30

Leu Tyr Ile Phe Leu Ser Glu Ala His Cys Thr Cys Ile Glu Ala Arg $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ile Glu Ser Arg Lys Ile Lys Pro His Ser Pro Thr Ala Lys Cys Ala
50 55 60

Phe Pro

<220>

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65
<210> 1714
<211> 107
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1714
Gly Thr Xaa Thr Phe Pro Gly Pro Pro Asn Asn Ser Ser Ile His Gly
                                    10
Gly Ser Lys Arg Ser Glu Asn Ser Tyr Cys Arg Asp Leu Arg Gly Gln
             20
Leu Arg Ala Ile Cys Cys Ser Ser Tyr Ser His Asp Arg His Thr Thr
Glu Glu Arg Gly Ser Arg Gly Arg Arg Val Trp Arg Ile Arg Arg Leu
His Thr Ser Gly Leu Pro Cys Cys Cys His Ser Gly Pro His Pro Arg
 65
                    70
                                        75
                                                             80
Arg Leu Pro Asp Ile Leu Arg Leu Val Thr Ser Thr Lys Thr Asp His
                 85
Thr Asn Thr Thr Glu Gly Thr Leu Asp Tyr Leu
           100
<210> 1715
<211> 491
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE <222> (43) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (44) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1715 Ala Ala Arg Val Gly Arg His Gly Arg Arg Arg Arg Ser Ala Ala Met 5 10 Ala Gly Arg Gly Gly Ser Ala Leu Leu Ala Leu Cys Gly Ala Leu Ala Ala Cys Gly Trp Leu Leu Gly Ala Glu Xaa Xaa Xaa Pro Gly Ala Pro Ala Ala Gly Met Arg Arg Arg Arg Leu Gln Glu Asp Gly Ile Ser Phe Glu Tyr His Arg Tyr Pro Glu Leu Arg Glu Ala Leu Val Ser 7.0 75 Val Trp Leu Gln Cys Thr Ala Ile Ser Arg Ile Tyr Thr Val Gly Arg Ser Phe Glu Gly Arg Glu Leu Leu Val Ile Glu Leu Ser Asp Asn Pro 105 Gly Val His Glu Pro Gly Glu Pro Glu Phe Lys Tyr Ile Gly Asn Met 115 120 His Gly Asn Glu Ala Val Gly Arg Glu Leu Leu Ile Phe Leu Ala Gln 130 135 Tyr Leu Cys Asn Glu Tyr Gln Lys Gly Asn Glu Thr Ile Val Asn Leu Ile His Ser Thr Arg Ile His Ile Met Pro Ser Leu Asn Pro Asp Gly 170 Phe Glu Lys Ala Ala Ser Gln Pro Gly Glu Leu Lys Asp Trp Phe Val 180 185 Gly Arg Ser Asn Ala Gln Gly Ile Asp Leu Asn Arg Asn Phe Pro Asp

Leu Asp Arg Ile Val Tyr Val Asn Glu Lys Glu Gly Gly Pro Asn Asn

215

210

His 225		Leu	Lys	Asn	Met 230		Lys	Ile	val	235		Asn	Thr	Lys	Leu 240
Ala	Pro	Glu	Thr	Lys 245	Ala	Val	Ile	His	Trp 250		Met	Asp	Ile	Pro 255	Phe
Val	Leu	Ser	Ala 260	Asn	Leu	His	Gly	Gly 265		Leu	Val	Ala	Asn 270	Tyr	Pro
туг	Asp	Glu 275		Arg	Ser	Gly	Ser 280	Ala	His	Glu	Tyr	Ser 285	Ser	Ser	Pro
	290					295					Tyr 300				
305					310					315					320
				325					330		Gly			335	
			340					345			Ser		350		
		355					360				Pro	365			
	370					375		-			Leu 380			•	
385					390					395	Arg	-			400
				405					410		Gly		-	415	
			420					425			Leu		430		-
		435					440				Leu	445			
	450					455					460				
Glu 465	Ser	Phe	Ser		Arg 470	Lys	Glu	Glu	Glu	Lys 475	Glu	Glu	Leu		Glu 480
Trp	Trp	Lys		Met 485	ser	Glu	Thr	Leu	Asn 490	Phe					

PCT/US00/05988 1575

<210> 1716

<211> 179

<212> PRT

<213> Homo sapiens

<400> 1716

Ala Ala Glu Glu Thr Gly Gly Ala Gln Pro Glu Gly Arg Gly Val Gly 10

Pro Lys Glu Arg Glu Leu Gln His Ala Ala Leu Gly Gly Thr Ala Ile

Gln Pro Cys Phe Phe Gln Asp Ile Ser Met Glu Ile Pro Gln Glu Phe 40

Gln Lys Thr Val Ser Thr Met Tyr Tyr Leu Trp Met Cys Ser Thr Leu 55

Ala Leu Leu Leu Asn Phe Leu Ala Cys Leu Ala Ser Phe Cys Val Glu

Thr Asn Asn Gly Ala Gly Phe Gly Leu Ser Ile Leu Trp Val Leu Leu

Phe Thr Pro Cys Ser Phe Val Cys Trp Tyr Arg Pro Met Tyr Lys Ala 100 105

Phe Arg Ser Asp Ser Ser Phe Asn Phe Phe Val Phe Phe Phe Ile Phe 115 120

Phe Val Gln Asp Val Leu Phe Val Leu Gln Ala Ile Gly Ile Pro Gly 135

Trp Gly Phe Ser Gly Trp Ile Ser Ala Leu Val Val Pro Lys Ala Thr 145 150

Gln Gln Tyr Pro Cys Ser Cys Cys Trp Ser Pro Cys Ser Ser Leu Ala 165 170

Leu Leu Cys

<210> 1717

<211> 499

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (485) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (486) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1717 Arg Pro Val Arg Asn Ser Arg Val Thr Thr Xaa Pro Pro Ala Gln Gln Thr Arg Arg Asp Gln Ser Val Pro Val Gly Ser Met Ala Thr Lys Cys 20 Gly Asn Cys Gly Pro Gly Tyr Ser Thr Pro Leu Glu Ala Met Lys Gly Pro Arg Glu Glu Ile Val Tyr Leu Pro Cys Ile Tyr Arg Asn Thr Gly 55 Thr Glu Ala Pro Asp Tyr Leu Ala Thr Val Asp Val Asp Pro Lys Ser 65 75 Pro Gln Tyr Cys Gln Val Ile His Arg Leu Pro Met Pro Asn Leu Lys Asp Glu Leu His His Ser Gly Trp Asn Thr Cys Ser Ser Cys Phe Gly Asp Ser Thr Lys Ser Arg Thr Lys Leu Val Leu Pro Ser Leu Ile Ser 115 120 125 Ser Arg Ile Tyr Val Val Asp Val Gly Ser Glu Pro Arg Ala Pro Lys 130 135 Leu His Lys Val Ile Glu Pro Lys Asp Ile His Ala Lys Cys Glu Leu 155 Ala Phe Leu His Thr Ser His Cys Leu Ala Ser Gly Glu Val Met Ile 170 Ser Ser Leu Gly Asp Val Lys Gly Asn Gly Lys Gly Gly Phe Val Leu

			180					185	•				190	1	
Leu	Asp	Gly 195		Thr	Phe	Glu	Val 200		Gly	Thr	Trp	Glu 205		Pro	Gly
Gly	Ala 210		Pro	Leu	Gly	Tyr 215		Phe	Trp	Tyr	Gln 220	Pro	Arg	His	Asn
Val 225	Met	Ile	Ser	Thr	Glu 230	Trp	Ala	Ala	Pro	Asn 235	Val	Leu	Arg	Asp	Gly 240
Phe	Asn	Pro	Ala	Asp 245	Val	Glu	Ala	Gly	Leu 250		Gly	Ser	His	Leu 255	Tyr
Val	Trp	Asp	Trp 260	Gln	Arg	His	Glu	11e 265	Val	Gln	Thr	Leu	ser 270	Leu	Lys
Asp	Gly	Leu 275	Ile	Pro	Leu	Glu	11e 280	Arg	Phe	Leu	His	Asn 285	Pro	Asp	Ala
Ala	Gln 290	Gly	Phe	Val	Gly	Cys 295	Ala	Leu	Ser	Ser	Thr 300	Ile	Gln	Arg	Phe
Tyr 305	Lys	Asn	Glu	Gly	Gly 310	Thr	Trp	Ser	Val	Glu 315	Lys	Val	Ile	Gln	Val 320
Pro	Pro	Lys	Lys	Val 325	Lys	Gly	Trp	Leu	Leu 330	Pro	Glu	Met	Pro	Gly 335	Leu
Ile	Thr	Asp	11e 340	Leu	Leu	Ser	Leu	Asp 345	Asp	Arg	Phe	Leu	Tyr 350	Phe	Ser
Asn	Trp	Leu 355	His	Gly	Asp	Leu	Arg 360	Gln	Tyr	Asp	Ile	Ser 365	Asp	Pro	Gln
	Pro 370	Arg	Leu	Thr	Gly	Gln 375	Leu	Phe	Leu	Gly	Gly 380	ser	Ile	Val	Lys
Gly 385	Gly	Pro	Val	Gln	Val 390	Leu	Glu	Asp	Glu	Glu 395	Leu	Lys	Ser	Gln	Pro 400
Glu	Pro	Leu	Val	Val 405	Lys	Gly	Lys	Arg	Val 410	Ala	Gly	Gly	Pro	Gln 415	Met
Ile	Gln	Leu	ser 420	Leu	Asp	Gly	Lys	Arg 425	Leu	Tyr	Ile	Thr	Thr 430	Ser	Leu
Tyr		Ala 435	Trp	Asp	Lys	Gln	Phe 440	Tyr	Pro	Asp	Leu	11e 445	Arg	Glu	Gly

Ser Val Met Leu Gln Val Asp Val Asp Thr Val Lys Gly Gly Leu Lys

450 455 460

Leu Asn Pro Asn Phe Leu Val Asp Phe Gly Lys Glu Pro Leu Gly Pro 470 475

Ala Leu Ala His Xaa Xaa Arg Tyr Pro Gly Gly Asp Cys Ser Ser Asp 490

Ile Trp Ile

<210> 1718

<211> 213 <212> PRT

<213> Homo sapiens

<400> 1718

Phe Ile Met Asp Asn Leu Ser Ser Glu Glu Ile Gln Gln Arg Ala His

Gln Ile Thr Asp Glu Ser Leu Glu Ser Thr Arg Arg Ile Leu Gly Leu 20 25

Ala Ile Glu Ser Gln Asp Ala Gly Ile Lys Thr Ile Thr Met Leu Asp

Glu Gln Lys Glu Gln Leu Asn Arg Ile Glu Glu Gly Leu Asp Gln Ile

Asn Lys Asp Met Arg Glu Thr Glu Lys Thr Leu Thr Glu Leu Asn Lys 65 70 75

Cys Cys Gly Leu Cys Val Cys Pro Cys Asn Arg Thr Lys Asn Phe Glu 85 9.0

Ser Gly Lys Ala Tyr Lys Thr Thr Trp Gly Asp Gly Glu Asn Ser

Pro Cys Asn Val Val Ser Lys Gln Pro Gly Pro Val Thr Asn Gly Gln 120

Leu Gln Gln Pro Thr Thr Gly Ala Ala Ser Gly Gly Tyr Ile Lys Arg 130 135

Ile Thr Asn Asp Ala Arg Glu Asp Glu Met Glu Glu Asn Leu Thr Gln 150 155

Val Gly Ser Ile Leu Gly Asn Leu Lys Asp Met Ala Leu Asn Ile Gly 165 170

Asn Glu Ile Asp Ala Gln Asn Pro Gln Ile Lys Arg Ile Thr Asp Lys 180 185 Ala Asp Thr Asn Arg Asp Arg Ile Asp Ile Ala Asn Ala Arg Ala Lys 200 Lvs Leu Ile Asp Ser 210 <210> 1719 <211> 102 <212> PRT <213> Homo sapiens <400> 1719 Gly Met Glu Gly Thr Glu Met Gly Ala Arg Pro Gly Gly His Pro Gln 5 10 Lys Trp Ser Phe Leu Trp Ser Leu Ala Leu Trp Leu Pro Leu Ala Leu 25 Ser Val Ser Leu Phe Leu Gly Leu Ser Leu Ser Pro Pro Gln Pro Gly 40 Leu Ser Leu Trp Cys Thr Leu Ser Tyr Cys Cys Glu Gln Trp Lys Phe Lys Gly Thr Pro Ser Pro Ala Leu Leu Asn Leu Gly Thr Gln Pro Lys 65 70 Lys Asp Lys Lys Leu Glu Asp Ser Ile Ala Thr Gln Leu Arg Glu Leu 9.0 Pro Glu Lys Asn Ser Asn 100 <210> 1720 <211> 20 <212> PRT <213> Homo sapiens <400> 1720 Ala Gln Trp Leu Thr Pro Val Ile Leu Ala Phe Trp Lys Ala Glu Ala 5 10

Gly Gly Ser Leu

20

<210> 1721

<211> 50 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1721

Ile Arg His Glu Val Leu Ile Val Pro Leu Leu Val Gly Leu Arg Gln
1 5 10 15

Glu Asp His Leu Ser Pro Gly Gly Arg Gly Tyr Ser Glu Pro Arg Val 20 25 30

His Tyr Cys Thr Pro Ala Arg Xaa Arg Glu Arg Asp Pro Val Ser Ile \$35\$

Asn Lys 50

<210> 1722

<211> 56

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1722

Glu Xaa Gly Thr Glu Ser His Tyr Val Thr Gln Ala Gly Val Gln Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

His Asp Leu Ser Ser Leu Gln Pro Ser Pro Pro Gly Phe Lys Arg Phe $20 \ \ 25 \ \ \ 30$

Ser Cys Leu Arg Leu Leu Ser Ser Trp Asp Tyr Arg His Thr Pro Pro 35 40 45

Arg Pro Ala Asn Phe Leu Tyr Phe

50

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<210> 1723
 <211> 111
 <212> PRT
<213> Homo sapiens
<220>
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<220>
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<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (50)
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<220>
<221> SITE
<222> (67)
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<400> 1723
Gly Ser Thr His Ala Ser Ala Met Xaa Xaa Xaa Thr Ser Gly Val Gly
Asp Glu Trp Trp Pro Lys Gln Gly Asp Ser Lys Gly Arg Ser Gly Gly
                                 25
Arg Pro Trp Arg Thr Ala Ala Arg Ser Gly Leu Thr Gly Ala Ser Ser
         35
                                                 45
Arg Xaa Arg Trp Thr Thr Ala Pro Arg Trp Ile Ser Ala Tyr Pro Ser
    50
                         55
```

Val Arg Xaa Ala Lys Glu Gly Arg Leu Gln Glu Val Ile Glu Thr Leu Leu Ser Leu Glu Lys Gln Thr Arg Thr Ala Ser Asp Met Val Ser Thr 90 Ser Arg Ile Leu Val Ala Ser Ser Gly Arg Cys Ala Asn Xaa Gly 100 105 <210> 1724 <211> 75 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (70) <223> Xaa equals any of the naturally occurring L-amino acids Gly Arg Gly Arg Cys Glu Xaa Gly Lys Met Ala Ala Ala Ala Val Val 10 Glu Phe Gln Arg Ala Gln Ser Leu Leu Ser Thr Asp Arg Glu Ala Ser 20 Ile Asp Ile Leu His Ser Ile Val Lys Arg Asp Ile Gln Glu Asn Asp 40 Glu Glu Ala Val Gln Val Lys Glu Gln Ser Ile Leu Glu Leu Gly Ser 50 55 Leu Leu Ala Lys Thr Xaa Gln Ala Ala Glu Leu

<210> 1725

65

<211> 63

<212> PRT <213> Homo sapiens 70

<220>

<221> SITE

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<222> (59)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Pro Gly Ser Arg His His Arg Ala Arg Asp Arg Leu Ile His Phe Gly
                                     10
 Ala Val Ser Thr Asp Val Leu Gly Cys Ser Ala His Cys Ser Leu Thr
 Gln Ser Pro Lys Met Asn Ile Gln Glu Gln Gly Phe Pro Leu Asp Leu
                             40
 Gly Ala Ser Phe Thr Glu Asp Ala Pro Pro Xaa Pro Ser Ala Trp
      50
                         55
<210> 1726
<211> 170
 <212> PRT
<213> Homo sapiens
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<222> (60)
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (115)
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<222> (116)
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<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (156)
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<400> 1726 Ala Glu Pro Asp Gly Ser His Pro Val Val Xaa Ala Pro Tyr Asn Gly 10 Gly Pro Ala Gly Thr Cys Pro Lys Ile Lys Gln Glu Ala Val Ser Ser Cys Thr His Leu Gly Ala Gly Pro Pro Leu Gln Gln Trp Pro Pro Ala 40 Gly Cys His Thr Asp Phe Pro Leu Gly Thr Ala Xaa Pro Gln Gln Asp Leu Pro Arg Thr Leu Gly Leu Glu Gly Ser Ala Glu Gln Gln Gly Thr 70 Val His Pro Ala Leu Pro Val Ser Xaa Arg Val Ser Ile Pro Thr Arg 90 Gly Pro Asn Leu Pro Xaa Xaa Phe Leu Xaa Pro Ile Gln Met Gln Pro 100 105 Xaa Val Xaa Xaa Arg Xaa Ile Asn Gln Gly Val Tyr Ala Asn Arg Xaa Leu Asp Ala Lys Gly Gly Pro Ser Gln Arg Gly Xaa Arg Arg Leu Trp 135 Ala Pro Glu Lys Asp Arg Gln Pro Xaa Phe Asp Xaa Gly Val Trp Glu 145 150 155 Lys Xaa Ser Lys Lys Gly Phe Ser Xaa Phe 165 170 <210> 1727 <211> 98 <212> PRT <213> Homo sapiens <220> <221> SITE

<222> (97) \leq 223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (83)

<220> <221> SITE <220>

<221> SITE <222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1727

Leu Arg Ala Arg Gly Ala Ala Trp Ala Gly Gly Leu Leu His Arg Ala

Ala Pro Cys Ser Leu Leu Pro Arg Leu Arg Thr Trp Thr Ser Ser Ser

Asn Arg Ser Arg Glu Asp Ser Trp Leu Lys Ser Leu Phe Val Arg Lys 35 40

Val Asp Pro Arg Lys Asp Ala His Ser Asn Leu Leu Ser Lys Lys Glu

Thr Ser Asn Leu Tyr Lys Leu Gln Phe His Asn Val Lys Pro Glu Cys 70

Leu Glu Xaa Tyr Asn Lys Ile Cys Gln Glu Val Leu Pro Lys Ile His 85 90

Xaa Xaa

<210> 1728

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

Gly Ser Leu Phe Pro Arg Val Leu Pro Ser Pro Leu Gly Pro Pro Gly 1

Gly Lys His Gly Val Cys Pro Gly Ala Val Arg Glu Gln Cys Pro Thr

Ala Leu Ser Ser Arg Phe Val Lys Phe Ser Met Pro Ser Val Pro Asp 35 40

Phe Glu Thr Leu Phe Ser Gln Val Gln Leu Phe Ile Ser Thr Cvs Asn

50 55 60 Gly Glu His Ile Arg Tyr Ala Thr Asp Thr Phe Ala Gly Leu Cys His 65 70 Gln Leu Thr Asn Ala Leu Val Glu Arg Lys Gln Pro Leu Arg Gly Ile Gly Ile Leu Lys Gln Ala Ile Asp Lys Met Gln Met Asn Thr Asn Gln 105 Leu Thr Ser Ile His Xaa Asp Leu Cys Gln Leu Val Cys 115 120 <210> 1729 <211> 55 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (52) <223> Xaa equals any of the naturally occurring L-amino acids Ile Leu Thr Met Arg Glu Ile Val His Ile Gln Ala Gly Gln Cys Gly 5 Asn Gln Ile Gly Ala Lys Phe Trp Glu Val Ile Ser Asp Glu His Gly 25 His Arg Pro His Arg Ala Pro Thr Thr Gly Asp Ser Asp Leu Pro Ala 40 Gly Thr Ala Xaa Ser Val Tyr 50 55 <210> 1730 <211> 128 <212> PRT <213> Homo sapiens <400> 1730 Arg Ile Ala Ala Ser Glu Thr Arg Val Ala Pro Ser Val Leu Arg Leu 1

10

Ala Met Thr Ser Tyr Ser Tyr Arg Gln Ser Ser Ala Thr Ser Ser Phe

20 25 30

Gly Gly Leu Gly Gly Gly Ser val Arg Phe Gly Pro Gly val Ala Phe $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Ala Pro Ser Ile His Gly Gly Ser Gly Gly Arg Gly Val Ser Val 50 60

Ser Ser Ala Arg Phe Val Ser Ser Ser Ser Gly Gly Tyr Gly Gly 65 70 75 80

Gly Tyr Gly Gly Val Leu Thr Ala Ser Asp Gly Leu Leu Ala Gly Asn 85 90 95

Glu Lys Leu Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Asp Lys Val Arg Ala Leu Glu Ala Ala Asn Gly Glu Leu Glu Val Lys 115 \$120\$ \$125\$

<210> 1731

<211> 156

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1731

Ser Thr His Ala Ser Ala His Ala Ser Glu Trp Ser Glu Glu Glu Leu

Ile Ala Ala Lys Phe Cys Phe Ala Gly Leu Leu Ile Gly Gln Thr Glu 20 25 30

Val Asp Ile Met Ser Xaa Ala Thr Gln Ala Ile Phe Glu Ile Leu Glu

40

```
Lys Ser Trp Leu Pro Gln Asn Cys Thr Leu Val Asp Met Lys Ile Glu
                          55
 Phe Gly Val Asp Val Thr Thr Lys Glu Ile Val Leu Ala Asp Val Ile
 65
 Asp Asn Asp Ser Trp Arg Leu Trp Pro Ser Gly Asp Arg Ser Gln Gln
                 85
                                     90
Lys Asp Lys Gln Ser Tyr Arg Asp Leu Lys Glu Val Thr Pro Glu Gly
            100
                                105
Leu Gln Met Val Lys Arg Asn Phe Glu Trp Val Ala Glu Arg Val Glu
        115
Leu Leu Lys Ser Xaa Ser Gln Cys Arg Val Val Leu Xaa Gly
                        135
Ser Thr Ser Asp Leu Gly His Cys Glu Lys Ile Gln
145
                    150
                                        155
<210> 1732
<211> 101
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (29)
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<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>

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<220>
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<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (91)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (93)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (94)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1732
Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val Leu Ser Gly Gly
                  5
                                     10
                                                          15
Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln Xaa Glu Ile Thr
Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu
Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser
     50
                         55
                                             60
Thr Phe Gln Xaa Xaa Trp Ile Thr Ser Arg Ser Thr Thr Xaa Arg Xaa
 65
                     70
                                         75
Pro Pro Ser Ser Thr Ala Asn Ala Ser Asn Xaa Leu Xaa Xaa Ala Tyr
                                     90
His Cys Cys Met Gly
            100
<210> 1733
<211> 101
<212> PRT
<213> Homo sapiens
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<221> SITE
 <222> (57)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (101)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1733
 Ala Arg Arg Arg Gln Lys Gly Pro Ala Ala Pro Glu Ser Lys Pro Val
                                     10
 Pro Ala Gln Ser Arg Pro Ala Ala Val Cys Leu Leu Phe Gln His Asp
             20
 Arg Cys Arg Cys Val Leu Arg Gln Gly Leu Pro Gly Arg Trp Ser Gly
Arg Ser His Leu Lys Thr Ala Val Xaa Pro Ser Ser Gly Ser Ser Cys
                          55
Cys Cys Ser Cys Asn Ala Ser Lys Gln Ile Thr Ala Asp Lys Gln Cys
 65
                     70
                                          75
                                                              80
Lys Gly Ile Ile Asp Cys Val Val Arg Ile Pro Lys Glu Gln Asp Ser
                                     90
Val Leu Leu Ala Xaa
            100
<210> 1734
<211> 152
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (133)
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (142)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (148)
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Arg Val His Leu Glu Leu Gln Glu Ala Arg Val Met Leu Val Pro
                                     10
Leu Val Asn Val Asp Leu Leu Asp Trp Gln Gly Pro Gln Asp Leu Glu
Val Glu Leu Val Pro Leu Val Pro Lys Glu Glu Arg Val Leu Leu Val
Leu Leu Gly His Leu Val Leu Leu Val Leu Val Cys Lys Glu Cys
                         55
Leu Glu Lys Glu Glu Val Leu Glu Val Leu Val Gln Arg Val Thr Arg
 65
Val Asn Gln Ala Val Gln Val Leu Met Val Ser Gln Gly Lys Met Ala
                 85
                                    9.0
Gln Gly Val Leu Xaa Val Leu Leu Val Leu Leu Ala Gln Leu Ala Ser
           100
Leu Glu Ile Lys Gly Glu Gly Gly Ala Pro Gly Phe Pro Xaa Ile Ser
        115
                            120
Trp Thr Cys Gly Xaa Pro Gly Glu Arg Gly Glu Met Ala Xaa Gln Asp
Xaa Trp Phe Xaa Trp Cys Ser Trp
```

150

PCT/US00/05988

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<211> 26
<212> PRT
<213> Homo sapiens
<400> 1735
Val Arg Ala Arg Val Pro Ser Pro Ala Ala Ala Met Gly Cys Thr Leu
Ser Ala Glu Asp Lys Ala Ala Val Glu Arg
             20
<210> 1736
<211> 95
<212> PRT
<213> Homo sapiens
<400> 1736
His Glu Val Ser Ala Ala Ser Leu Val Pro Ala Val Pro Gln Pro Glu
Ala Asp Asn Leu Thr Leu Arg Tyr Arg Ser Leu Val Tyr Gln Leu Asn
             20
                                 25
Phe Asp Gln Thr Leu Arg Asn Val Asp Lys Ala Gly Thr Trp Ala Pro
Arg Glu Leu Val Leu Val Val Gln Val His Asn Arg Pro Glu Tyr Leu
Arg Leu Leu Leu Asp Ser Leu Arg Lys Ala Gln Gly Ile Asp Asn Val
65
                    70
                                        75
Leu Val Ile Phe Ser His Asp Ser Gly Arg Pro Arg Ser Ile Ser
                85
                                     90
<210> 1737
<211> 77
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring L-amino acids
Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
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1 5 10 15 Arg Arg His Ser Ser Ser Ile Glu Ser Pro Lys Phe Asn Ser Leu Ala 25 Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu 40 Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu 50 55 60 Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Xaa 65 70 <210> 1738 <211> 55 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1738
Leu Ile Xaa His Ile Gly Xaa Gly Xaa Cys Ser Thr Val Xaa Ile Pro
                                    10
Gly Ser Arg Asp Pro Ser Leu Arg Thr Ala His Ala Arg His Ser Ser
             20
Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln Arg
                             40
Arg Asp Trp Glu Asn Xaa Xaa
     50
<210> 1739
<211> 37
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
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<220>
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<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1739
Ser Arg Gly Ser Lys Leu Thr Xaa Ala Cys Met Arg Arg His Ser Ser
                  5
                                     10
Ser Ile Val Ser Ala Lys Phe Asn Ser Leu Ala Val Val Leu Gln Arg
             20
                                 25
Arg Xaa Trp Glu Xaa
        35
<210> 1740
<211> 110
<212> PRT
<213> Homo sapiens
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```
<400> 1740
Leu Thr Glu Thr Arg Phe Lys Thr Gly Thr Thr Leu Lys Tyr Thr Cys
Leu Pro Gly Tyr Val Arg Ser His Ser Thr Gln Thr Leu Thr Cys Asn
                                 25
Ser Asp Gly Glu Trp Val Tyr Asn Thr Phe Cys Ile Tyr Lys Arg Cys
         35
Arg His Pro Gly Glu Leu Arg Asn Gly Gln Val Glu Ile Lys Thr Asp
                         55
Leu Ser Phe Gly Ser Gln Ile Glu Phe Ser Cys Ser Glu Gly Phe Phe
Leu Ile Gly Ser Thr Thr Ser Arg Cys Glu Val Gln Asp Arg Gly Val
                 85
                                    90
Gly Trp Ser His Pro Leu Pro Gln Cys Glu Ile Val Gln Val
           100
                               105
<210> 1741
<211> 49
<212> PRT
<213> Homo sapiens
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<222> (21)
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<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1741
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Gln Val His Leu Asp Gln Val Glu Val Ala Ser Xaa Leu Thr Leu Cys
 Lys Glu Gly Cys Xaa Ala Ile Val Asp Thr Gly Thr Ser Leu Met Val
             20
Gly Pro Val Asp Xaa Val Arg Xaa Cys Arg Arg Pro Ser Gly Pro Cys
         35
                              40
Arq
<210> 1742
<211> 90
<212> PRT
<213> Homo sapiens
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<222> (6)
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<220>
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<222> (7)
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<222> (60)
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<222> (64)
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<221> SITE
<222> (72)
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<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220> <221> SITE

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<222> (85)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Gly Pro Ser Thr Arg Xaa Xaa Met Ile Glu Tyr Asp Pro Glu Arg Arg
 Leu Gly Ile Phe Trp Val Ser Cys Glu Ala Gly Thr Tyr Ile Arg Thr
 Leu Cys Val His Leu Gly Leu Leu Leu Gly Val Gly Gly Gln Met Gln
                            40
Glu Leu Arg Arg Val Arg Ser Gly Val Met Ser Xaa Lys Asp His Xaa
      50
                          55
Val Thr Met His Asp Val Leu Xaa Ala Gln Trp Leu Tyr Xaa Asn His
 65
Lys Asp Glu Ser Xaa Leu Arg Gly Val Val
                 85
<210> 1743
<211> 116
<212> PRT
<213> Homo sapiens
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<222> (14)
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<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (36)
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<223> Xaa equals any of the naturally occurring L-amino acids

<222> (74)

<220> <221> SITE

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<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (91)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (116)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1743
Ala Gly Ser Val Arg Arg Pro Cys Arg Arg Pro Trp Gly Xaa Arg Ala
Gly Glu Arg Met Xaa Gly Ala Gly Glu Glu Asp Pro Ala Ala Ala Phe
                                 25
Leu Ala Gln Kaa Arg Ser Glu Ile Ala Gly Ile Glu Asn Asp Glu Ala
         35
                            40
Phe Ala Ile Leu Glu Arg Arg Pro Arg Ala Pro Thr Ala Arg Lys
     50
                         55
Val Arg Arg Gly Val Pro Met Leu Leu Xaa Gly Xaa Met Xaa Trp Trp
Ile Xaa Thr Xaa Lys Leu Met Val Pro Thr Xaa Ile Met Gln Tyr Phe
                 85
                                     9.0
```

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Lys Met Asp Arg Leu His Gln Asn Leu Lys Tyr Pro Lys Trp Arg Xaa
             100
                                105
                                                     110
Lvs Met Glu Xaa
        115
<210> 1744
<211> 125
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (23)
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<220>
<221> SITE
<222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (106)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1744
Arg Val Thr Thr Gly Thr Xaa Xaa Val Leu Val Ala Val Asp Lys Gly
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1 5 10 19

Val Phe Val Leu Asn Lys Xaa Asn Lys Leu Thr Gln Ser Lys Ile Trp 20 25 30

Asp Val Val Glu Lys Ala Asp Ile Gly Cys Thr Pro Gly Ser Gly Lys \$35\$ \$40\$ \$45\$

Asp Tyr Ala Gly Val Phe Ser Asp Ala Gly Leu Thr Xaa Thr Ser Ser 50 60

Ser Gly Gln Gln Thr Ala Gln Xaa Ala Glu Leu Gln Cys Pro Gln Pro 65 70 75 80

Ala Ala Arg Arg Arg Xaa Ser Val Gln Leu Thr Glu Lys Arg Met Asp $85 \hspace{1cm} 90 \hspace{1cm} 95$

Lys Val Gly Lys Tyr Pro Lys Glu Leu Xaa Lys Cys Glu Asp Gly 100 105 110

Ile Arg Glu Asn Pro Met Lys Phe Ser Cys Gln Gly Gly 115 120 125

<210> 1745

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1745

Gly Ala Ala Val Ser Val Lys Met Ile Glu Val Leu Thr Thr Asp 1 5 10 15

Ser Gln Lys Leu His Gln Leu Asn Ala Leu Leu Glu Gln Glu Ser 20 25 30

Arg Cys Gln Pro Lys Val Cys Gly Leu Arg Leu Ile Glu Ser Ala His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asp Asn Gly Leu Arg Met Thr Ala Arg Leu Arg Asp Phe Glu Val Lys 50 60

Asp Leu Leu Ser Leu Thr Gln Phe Leu Ala 65 70

<210> 1746

<211> 38

<212> PRT

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<213> Homo sapiens
 <400> 1746
 Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly
 Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe
              20
                                  25
Gly Tyr Ile Gly Met Val
         35
<210> 1747
<211> 35
<212> PRT
<213> Homo sapiens
Leu Val Pro Asn Ser Ala Arg Glu Thr Phe Leu Thr Ile Cys Phe Ile
                                      10
Arg Gln Leu Ile Phe His Phe Thr Ser Lys His His Phe Gly Phe Glu
             20
                                  25
                                                      30
Ala Ala Ala
<210> 1748
<211> 183
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (168)
<223> Kaa equals any of the naturally occurring L-amino acids
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<400> 1748
Ala Arg Val Glu Asn Arg Ala Gln Gln His Trp Gly Ser Gly Val Gly
  1
                  5
                                     10
                                                         15
Val Lys Lys Leu Cys Glu Leu Gln Pro Glu Glu Lys Cys Cys Val Val
             20
                                 25
Gly Thr Leu Phe Lys Ala Met Pro Leu Gln Pro Ser Ile Leu Arg Glu
                             40
Val Ser Glu Glu His Asn Leu Leu Pro Gln Pro Pro Arg Ser Lys Tyr
     50
Ile His Pro Asp Asp Glu Leu Val Leu Glu Asp Glu Leu Gln Arg Ile
65
                     70
                                         75
Lys Leu Lys Gly Thr Ile Asp Val Ser Lys Leu Val Thr Gly Thr Val
Leu Ala Val Phe Gly Ser Val Arg Asp Asp Gly Lys Phe Leu Val Glu
            100
                               105
```

Asp Tyr Cys Phe Val Asp Leu Ala Pro Gln Lys Pro Xaa Pro Pro Leu 115 120 125

Thr Gln Leu Gly Xaa Val Xaa Gly Val Arg Pro Gly Pro Gly Trp Arg

Trp Arg Arg Glu Xaa Val Gly His Pro Leu Leu Val Asp Xaa Val Thr

Gly Gln Phe Gly Asp Glu Gly Xaa His Ala Xaa Xaa Pro Ser Phe Pro 165 170 175

Val Ile Leu Val Xaa Thr Ser 180

<210> 1749

<211> 106

<212> PRT

<213> Homo sapiens

<400> 1749

His Glu Ala Glu Ala Ala Pro Val Gly Arg Ala Arg Gly Cys Cys Lys 1 5 10 15

Ala Glu Val Ala Ala Glu Ala Glu Thr Met Phe Arg Ala Ala Ala Pro \$20\$

Gly Gln Leu Arg Arg Ala Ala Ser Leu Leu Arg Phe Gln Ser Thr Leu \$35\$ \$40\$

Thr Ile Thr Ala Ala Thr Arg Leu Gly Gly Glu Val Ser Cys Leu Val

Ala Gly Thr Lys Cys Asp Lys Val Ala Gln Asp Leu Cys Lys Val Ala 85 90 95

Gly Ile Ala Lys Ser Ser Gly Gly Ser Ala 100 105

<210> 1750

<211> 99

<212> PRT

<213> Homo sapiens

<400> 1750
Arg Ser Cys Gly Val Thr Ala Gln Lys Tyr Arg Cys Glu Leu Leu Tyr
1 10 15

Glu Gly Pro Pro Asp Asp Glu Ala Ala Met Gly Ile Lys Ser Cys Asp \$20\$

Pro Lys Gly Pro Leu Met Met Tyr Ile Ser Lys Met Val Pro Thr Ser $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Thr Gly Leu Lys Val Arg Ile Met Gly Pro Asn Tyr Thr Pro Gly 65 70 75 80

Lys Lys Glu Asp Leu Tyr Leu Lys Pro Ile Gln Arg Thr Ile Leu Met \$85\$ 90 95

Met Gly Arg

<210> 1751

<211> 124

<212> PRT

<213> Homo sapiens

<400> 1751

Ala Ala Gln Pro Arg Leu Met Glu Pro Ile Tyr Leu Val Glu Ile Gln 1 5 10 15

Cys Pro Glu Gln Val Val Gly Gly Ile Tyr Gly Val Leu Asn Arg Lys \$20\$ \$25\$ 30

Arg Gly His Val Phe Glu Glu Ser Gln Val Ala Gly Thr Pro Met Phe \$35\$ \$40\$ \$45\$

Val Val Lys Ala Tyr Leu Pro Val Asn Glu Ser Phe Gly Phe Thr Ala 50 55 60

Asp Leu Arg Ser Asn Thr Gly Gly Gln Ala Phe Pro Gln Cys Val Phe 65 70 75 80

Asp His Trp Gln Ile Leu Pro Gly Asp Pro Phe Asp Asn Ser Ser Arg 85 90 95

Pro Ser Gln Val Val Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu 100 105 110 Gly Ile Pro Ala Leu Asp Asn Phe Leu Asp Lys Leu 115 120

<210> 1752

<211> 180

<212> PRT <213> Homo sapiens

<400> 1752

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu 1 5 10 15

Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Ala Gln Phe Ala Arg 20 25 30

Ser Leu Ser Ala Ala Pro Gln Leu Ser Asp Thr Ala Asp Thr Met Gly

Phe Gly Asp Leu Lys Ser Pro Ala Gly Leu Gln Val Leu Asn Asp Tyr 50 60

Leu Ala Asp Lys Ser Tyr Ile Glu Gly Tyr Val Pro Ser Gln Ala Asp 65 70 75 80

Val Ala Val Phe Glu Ala Val Ser Ser Pro Pro Pro Ala Asp Leu Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$

His Ala Leu Arg Trp Tyr Asn His Ile Lys Ser Tyr Glu Lys Glu Lys 100 105 110

Ala Ser Leu Pro Gly Val Lys Lys Ala Leu Gly Lys Tyr Gly Pro Ala 115 \$120\$

Asp Val Glu Asp Thr Thr Gly Ser Gly Ala Thr Asp Ser Lys Asp Asp 130 135

Asp Asp Ile Asp Leu Phe Gly Ser Asp Asp Glu Glu Glu Ser Glu Glu 145 \$150\$

Ala Lys Arg Leu Arg Glu Glu Arg Leu Ala Gln Tyr Glu Ser Lys Lys 165 170 175

Ala Lys Lys Pro 180 1607

<211> 126

<212> PRT

<213> Homo sapiens

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<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1753

Arg Xaa Lys Xaa Xaa Xaa Thr Ala Val Arg Xaa Ser Arg Leu Val Asp

Pro Pro Gly Cys Arg Asn Trp His Glu Val Ser Phe Cys Asp Leu Cys 20

Trp Asp Trp Lys Met Ser Ser Gly Asn Ala Lys Ile Gly His Pro Ala 35 40 45

Pro Asn Phe Lys Ala Thr Ala Val Met Pro Asp Gly Gln Phe Lys Asp

Ile Ser Leu Ser Asp Tyr Lys Gly Lys Tyr Val Val Phe Phe Tyr 70 75

Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu Ile Ile Ala Phe Ser 85

Asp Arg Ala Glu Glu Phe Lys Lys Leu Asn Cys Gln Val Ile Gly Ala 100 105

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Ser Val Asp Ser His Phe Cys His Leu Ala Trp Val Asn Thr
         115
                             120
<210> 1754
<211> 62
<212> PRT
<213> Homo sapiens
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 <222> (49)
 <223> Xaa equals any of the naturally occurring L-amino acids
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 <222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1754
 Trp Ile Pro Arg Ala Ala Gly Ile Arg His Ser Xaa Gly Gly Xaa Leu
                  5
                                      10
                                                          15
Val His Pro Xaa Xaa Val Xaa Xaa Ala Ala His Cys Leu Lys Lys Asn
Ser Gln Xaa Trp Leu Gly Arg His Asn Leu Xaa Glu Pro Xaa Asp Thr
                              40
Xaa Gln Arg Val Pro Xaa Ser His Ser Phe Pro His Pro Leu
     50
                         55
<210> 1755
<211> 42
<212> PRT
<213> Homo sapiens
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<220>
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<222> (29)
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<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1755
Glu Xaa Cys Val Ser Xaa Leu Gly Cys Trp Arg Phe Asn Pro Gln Cys
Phe His Xaa Asn Arg Gly Pro Ile Lys Phe Asn Val Xaa Gly His Ser
Arg Pro Gly Glu Phe Arg Gly Leu Glu Xaa
         35
                           40
<210> 1756
<211> 174
<212> PRT
<213> Homo sapiens
<400> 1756
Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu
                 5 10
Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Ala Gly Met Gln Lys
            20
Ala Asp Val Tyr Ser Phe Gly Ile Ile Leu Gln Glu Ile Ala Leu Arg
Ser Gly Pro Phe Tyr Leu Glu Gly Leu Asp Leu Ser Pro Lys Glu Ile
                       55
Val Gln Lys Val Arg Asn Gly Gln Arg Pro Tyr Phe Arg Pro Ser Ile
65
                                     75
                                                           80
Asp Arg Thr Gln Leu Asn Glu Glu Leu Val Leu Leu Met Glu Arg Cys
                85
Trp Ala Gln Asp Pro Ala Glu Arg Pro Asp Phe Gly Gln Ile Lys Gly
                              105
Phe Ile Arg Arg Phe Asn Lys Glu Gly Gly Thr Ser Ile Leu Asp Asn
       115
                          120
                                             125
```

Leu Leu Arg Met Glu Gln Tyr Ala Asn Asn Leu Glu Lys Leu Val

```
130
                       135
                                           140
Glu Glu Arg Thr Gln Ala Tyr Leu Glu Glu Lys Arg Lys Ala Glu Ala
 145
                     150
                                         155
Leu Leu Tyr Gln Ile Leu Pro His Ser Val Ala Glu Gln Leu
                 165
                                    170
<210> 1757
<211> 128
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (128)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1757
Glu Thr Xaa Lys Xaa Phe Lys Asp Pro Asn Ala Pro Lys Arg Pro Pro
```

Ser Ala Phe Phe Leu Phe Cys Ser Glu Tyr Arg Pro Lys Ile Lys Gly

25

20

Glu His Pro Gly Leu Ser Ile Gly Asp Val Ala Lys Lys Leu Gly Glu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Met Trp Asn Asn Thr Ala Ala Asp Asp Lys Gln Pro Tyr Glu Lys Lys
50 55 60

Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala Tyr Arg 65 70 75 80

Ala Lys Gly Lys Pro Asp Ala Ala Lys Lys Gly Val Val Lys Ala Glu 85 90 95

Lys Ser Lys Lys Lys Glu Glu Glu Glu Asp Glu Glu Asp Glu Glu Glu 100 105 110

Asp Glu Glu Glu Glu Glu Asp Glu Asp Glu Xaa Xaa Xaa His Xaa 115 120 125

<210> 1758

<211> 31

<212> PRT

<213> Homo sapiens

<400> 1758

Ala Arg Glu Asn Val Arg Pro Asp Tyr Leu Lys Ala Ile Trp Asn Val 1 $$1_{\rm T}$$

Ile Asn Trp Glu Asn Val Thr Glu Arg Tyr Met Ala Cys Lys Lys 20 25 30

<210> 1759

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Kaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<221> SITE <222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1759

Arg Glu Gln Lys Xaa Glu Leu His Arg Gly Ala Xaa Arg Ser Arg Thr 1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Ser Ala Arg Gln 20 25 30

Arg Xaa Lys Val Leu Ala His Phe Tyr Gly Val Lys Leu Glu Gly Lys 35 40 45

Val Pro Met His Lys Leu Phe Leu Glu Met Leu Glu Ala Met Met Asp 50 55 60

<210> 1760

<211> 106

<212> PRT

<213> Homo sapiens

<400> 1760

Lys Met Ala Ser Asn Lys Thr Thr Leu Gln Lys Met Gly Lys Lys Gln 1 1

Asn Gly Lys Ser Lys Lys Val Glu Glu Ala Glu Pro Glu Glu Phe Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Val Glu Lys Val Leu Asp Arg Arg Val Val Asn Gly Lys Val Glu Tyr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Leu Lys Trp Lys Gly Phe Thr Asp Ala Asp Asn Thr Trp Glu Pro 50 60

Glu Glu Asn Leu Asp Cys Pro Glu Leu Ile Glu Ala Phe Leu Asn Ser 65 70 75 80

Gln Lys Ala Gly Lys Glu Lys Asp Gly Thr Lys Arg Lys Ser Leu Ser 85 90 95

Asp Ser Gly Ser Asp Asp Ser Lys Gln Arg

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<210> 1761
 <211> 69
 <212> PRT
<213> Homo sapiens
<400> 1761
Ala Pro Ala Ser Pro Leu Leu Glu Met Asp Pro Asn Cys Ser Cys Ala
Thr Gly Gly Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys Lys Glu Cys
Lys Cys Thr Ser Cys Lys Lys Ser Cys Cys Ser Cys Cys Pro Val Gly
                              40
                                                 45
Cys Ala Lys Cys Ala Gln Gly Cys Val Cys Lys Gly Ala Ser Glu Lys
Cys Ser Cys Cys Ala
 65
<210> 1762
<211> 41
<212> PRT
<213> Homo sapiens
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<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1762 Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Xaa Asp Leu Tyr 5 Glu Trp Leu His Glu Gly Ser Ser Xaa Leu Leu Leu Leu Thr Ser Glu Asn Asp Leu Xaa Xaa Lys Arg Arg Ala 35 <210> 1763 <211> 154 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (147) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1763 Pro Thr Arg Pro Pro Thr Arg Pro Pro Ser Pro Asn Met Ala Ala Ser Ala Lys Lys Lys Asn Lys Lys Gly Lys Thr Ile Ser Leu Thr Asp Phe 25 Leu Ala Glu Asp Gly Gly Thr Gly Gly Gly Ser Thr Tyr Val Ser Lys 35 40 Pro Val Ser Trp Ala Asp Glu Thr Asp Asp Leu Glu Gly Asp Val Ser Thr Thr Trp His Ser Asn Asp Asp Asp Val Tyr Arg Ala Pro Pro Ile Asp Arg Ser Ile Leu Pro Thr Ala Pro Arg Ala Ala Arg Glu Pro Asn Ile Asp Arg Ser Arg Leu Pro Lys Ser Pro Pro Tyr Thr Ala Phe Leu 105 Gly Asn Leu Pro Tyr Asp Val Thr Glu Glu Ser Ile Lys Glu Phe Phe 120

Arg Gly Leu Asn Ile Ser Ala Val Arg Leu Pro Arg Glu Pro Ser Asn

140

135

Pro Glu Xaa Leu Lys Gly Leu Gly Met Leu

130

150

145

<221> SITE

<210> 1764 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (16) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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Arg Lys Val Ile Asp Asp Thr Asn Ile Thr Arg Leu Xaa Leu Glu Thr Glu Ile Glu Xaa Leu Xaa Glu Asp Leu Leu Phe Met Xaa Xaa Asn His 70

55

<210> 1765 <211> 64 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (26) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1765 Phe Gly Thr Arg Arg Asn Val Lys Leu Ile Ala Leu Ser Ile Asp Ser Val Glu Asp His Leu Ala Trp Ser Lys Xaa Ile Asn Ala Tyr Asn Cys

25

20

```
Glu Glu Pro Thr Glu Lys Leu Pro Phe Pro Ile Ile Asp Asp Arg Asn 35 \ \ 40 \ \ 45
```

Arg Glu Leu Ala Ile Leu Leu Gly Met Leu Asp Pro Ala Arg Glu Gly $50 \ \ 55 \ \ 60$

<210> 1766

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1766

Ile Arg His Glu Gln Ala Ala Ser Ser Pro Glu Pro Thr Gly Cys Leu 1 $$ 5 $$ 10 $$ 15

Leu Ser Gln Arg Arg Pro Leu Ile Thr Val Ala Met Pro Gly Gly Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Leu Leu Gly Asp Val Ala Pro Asn Phe Glu Ala Asn Thr Thr Val Gly $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Arg Ile Arg Phe His Asp Phe Leu Gly Asp Ser Trp Gly Ile Leu Phe $50 \hspace{1cm} 55$

Ser His Pro Arg Asp Phe Thr Pro Val Cys Thr Thr Glu Leu Gly Arg 65 70 75 80

Ala Ala Lys Trp His Gln Asn Leu Xaa Arg Gly Met Leu Ser \$85\$

<210> 1767

<211> 51

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1767
Gly Val Ser Cys Thr Xaa Pro Val Leu Gln Val Gln Arg Val Gln Met
His Leu Leu Gln Glu Glu Leu Leu Leu Leu Pro Cys Gly Cys Ala
                                 25
Lys Cys Ala Gln Gly Cys Ile Cys Lys Gly Ala Ser Glu Lys Cys Ser
                             40
Cvs Cvs Ala
     50
<210> 1768
<211> 143
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (8)
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<400> 1768
Gln Arg Thr Xaa Gly Asn Xaa Xaa Ala Cys Arg Tyr Arg Thr Gly Ile
Pro Gly Ser Thr His Ala Ser Gly Arg Gly His Gly Leu Ile Ala Val
            20
                                25
Cys Ala Leu His Ser Val Pro His Ser Pro Pro Thr Thr Cys Leu Ala
        35
                            40
Glu Arg Thr Pro Cys Arg Arg Pro Ala Glu Met Leu Arg Leu Pro Thr
Val Phe Arg Gln Met Arg Pro Val Ser Arg Val Leu Ala Pro His Leu
65
                                       75
```

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Thr Arg Ala Tyr Ala Lys Asp Val Lys Phe Gly Ala Asp Ala Arg Ala
                 85
Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val Thr
            100
                                105
Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly Ser
                            120
Pro Lys Val Thr Arg Asp Gly Val Thr Val Ala Lys Ser Leu Thr
    130
                        135
<210> 1769
<211> 168
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (7)
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PCT/US00/05988

<221> SITE <222> (131) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (163) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1769 Asn Ser Ala Arg Ala Cys Xaa Ala Glu Arg Thr Xaa Cys Arg Arg Pro 10 Ala Glu Met Leu Arg Leu Pro Thr Val Phe Arg Gln Met Arg Pro Val 20 Ser Arg Val Leu Ala Pro His Leu Xaa Arg Ala Tyr Ala Lys Xaa Val Lys Phe Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val 65 70 75 Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly 105 Ala Lys Xaa Val Gln Asp Val Ala Xaa Asn Thr Ile Glu Glu Leu Gly 115 120 125 Met Ala Xaa Pro Cys Tyr Cys Tyr Gly Thr Ser Ile Ala Lys Glu Gly 135 Phe Glu Lys Val Ser Lys Val Leu Ile His Gly Asn Gln Glu Arg Cys 150 155

Asp Val Xaa Val Asp Ala Val Leu 165

<210> 1770 <211> 148

<212> PRT

<213> Homo sapiens

<400> 1770

Gly Ala Glu Ala Phe Gly Ala Ala Lys Met Pro Asp Tyr Leu Gly Ala Asp Gln Arg Lys Thr Lys Glu Asp Glu Lys Asp Asp Lys Pro Ile Arg Ala Leu Asp Glu Gly Asp Ile Ala Leu Leu Lys Thr Tyr Gly Gln Ser 35 45 Thr Tyr Ser Arg Gln Ile Lys Gln Val Glu Asp Asp Ile Gln Gln Leu Leu Lys Lys Ile Asn Glu Leu Thr Gly Ile Lys Glu Ser Asp Thr Gly Leu Ala Pro Pro Ala Leu Trp Asp Leu Ala Ala Asp Lys Gln Thr Leu 85 9.0 Gln Ser Glu Gln Pro Leu Gln Val Ala Arg Cys Thr Lys Ile Ile Asn 105 Ala Asp Ser Glu Asp Pro Lys Tyr Ile Ile Asn Val Lys Gln Phe Ala 120 Lys Phe Val Val Asp Leu Ser Asp Gln Val Ala Pro Thr Asp Ile Glu Glu Gly Met Ara 145 <210> 1771 <211> 45 <212> PRT <213> Homo sapiens

<221> SITE <222> (38) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1771

<220>

Gly Arg Met Ala Glu Ser Ser Asp Lys Leu Tyr Arg Val Glu Tyr Ala $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Ser Gly Arg Ala Ser Cys Lys Lys Cys Ser Glu Thr Ser Pro Arg 20 25 30

Thr Arg Ser Gly Trp Xaa Ser Trp Cys Ile Ala His Val 35 40 45

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<210> 1772
<211> 81
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1772
Leu Glu Ala Glu Xaa Ser Leu Ser Arg Gly Asp Trp Tyr Lys Thr Lys
                                     10
Glu Ile Leu Leu Lys Gly Pro Asp Trp Ile Leu Gly Glu Ile Lys Thr
Ser Gly Leu Arg Gly Arg Gly Gly Ala Gly Phe Pro Asn Gly Leu Lys
        35
                             40
Trp Xaa Phe Met Ile Arg Pro Gln Met Ala Gly Pro Ser Ile Trp Trp
    50
                         55
Xaa Asn Ala Asn Glu Gly Gly Ala Gly Xaa Leu Xaa Glu Pro Gly Gly
65
                    70
                                         75
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Phe

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<210> 1773
<211> 145
<212> PRT
<213> Homo sapiens
<220>
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<222> (112)
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<400> 1773
Cys Glu Lys Thr Thr Glu Gly Ala Leu Pro Ser Ser Thr Ala Ala Ala
                                    10
Ser Phe Phe Cys Arg Ser Trp Cys Cys Leu Cys Ala Arg Leu Val Arg
             20
                                 25
Thr Trp Tyr Leu Phe Cys Glu Ala Ala Ala Glu Glu Thr Pro Ala Leu
Ala Met Ala Asp Glu Lys Pro Lys Glu Gly Val Lys Thr Glu Asn Asn
Asp His Ile Asn Leu Lys Val Ala Gly Gln Asp Gly Ser Val Val Gln
65
                    70
                                       75
Phe Lys Ile Lys Arg His Thr Pro Leu Ser Lys Leu Met Lys Ala Tyr
Cys Glu Arg Gln Gly Leu Ser Met Lys Gln Ile Arg Phe Arg Phe Xaa
                               105
Gly Gln Pro Ile Asn Xaa Thr Asp Thr Pro Ala Gln Leu Gly Asn Gly
       115
                           120
Arg Met Lys Ile Pro Met Met Cys Ser Lys Gln Gln Thr Gly Gly Val
    130
                       135
                                           140
Tyr
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145

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<210> 1774
<211> 122
<212> PRT
<213> Homo sapiens
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<400> 1774
His Ala Ser Ala His Ala Ser Ala Pro Leu Ala Met Ala Ser Leu Thr
 1
                  5
                                     10
                                                         15
Val Lys Ala Tyr Leu Leu Gly Lys Glu Asp Ala Ala Arg Glu Ile Arg
Arg Phe Ser Phe Cys Cys Ser Pro Glu Pro Glu Ala Gly Ser Xaa Ala
                             40
Ala Ala Gly Pro Gly Pro Leu Arg Ala Ala Ala Glu Pro Gly Gly Arg
     50
Pro Val Pro Arg Ala Ala Ala Trp Arg Leu Ser Arg Arg Thr Thr Ala
65
                     70
                                        75
Ile Glu Asp Gly Asp Leu Leu Leu Phe Ser Ile Asp Glu Asp Leu Thr
Trp Ala Cys Ser Thr Leu Lys Met Asn Leu Xaa Asp Phe Xaa Phe Xaa
            100
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105

110

Glu Lys Xaa Phe Pro Ala Gly Thr Arg Gln

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115
<210> 1775
<211> 105
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<400> 1775
Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg
                                                          15
 1
                  5
                                     10
Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Thr Leu Leu Thr Glu
```

20 2.5 30 Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met 40 Phe Glu Thr Phe Asn Val Gln Ala Met Xaa Leu Ala Ile Gln Ala Val 55 Leu Ser Leu Tyr Ala Ser Gly Xaa Thr Met Glu Ser Cys Trp Thr Leu 65 70 75 Glu Met Val Ser Pro Xaa Met Ser Gln Xaa Met Arg Ala Met Leu Xaa 85 Pro Met Gln Xaa Met Gly Leu Xaa Leu 100 <210> 1776 <211> 106 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (27) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

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<222> (63)
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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1776
Pro Leu Arg Gly Asn Val Val Pro Ser Pro Leu Pro Thr Arg Xaa Thr
 1
Arg Thr Phe Ser Ala Thr Val Arg Ala Ser Xaa Gly Pro Val Tyr Lys
                                 25
Gly Val Cys Lys Cys Phe Xaa Arg Ser Lys Gly His Gly Phe Xaa Xaa
         35
                             40
                                                 45
Pro Ala Asp Gly Gly Pro Asp Ile Phe Leu His Ile Phe Glu Xaa Xaa
     50
                         55
Arg Gly Ser Met Xaa Xaa Trp Lys Ala Thr Arg Ser Xaa Ile Lys Cys
                     70
Ala Ser Ile Pro Pro Lys Xaa Glu Lys Leu Gln Ala Val Gly Val Arq
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<221> SITE <222> (23)

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His Gln Ser Pro Gly Thr Arg Xaa Gln Val
            100
<210> 1777
<211> 90
<212> PRT
<213> Homo sapiens
<400> 1777
Gly Leu Asp Met Phe Ser Phe Val Asp Leu Arg Leu Leu Leu Leu
Ala Ala Thr Ala Leu Leu Thr His Gly Gln Glu Glu Gly Gln Val Glu
             20
                                 25
                                                     30
Gly Gln Asp Glu Asp Ile Pro Pro Ile Thr Cys Val Gln Asn Gly Leu
                             40
Arg Tyr His Asp Arg Asp Val Trp Lys Pro Glu Pro Cys Arg Ile Cys
Val Cys Asp Asn Gly Lys Val Leu Cys Asp Asp Val Ile Cys Asp Glu
 65
                     70
                                        75
Thr Lys Asn Cys Pro Gly Ala Glu Val Pro
                 85
<210> 1778
<211> 64
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1778
Ile Ile Xaa Asn Thr Glu Asn Leu Val Arg Glu Leu Leu Thr Val Pro
                 5
Asp Asn Tyr Xaa Val Ile Xaa Leu Ala Xaa Lys Trp Val Arg Pro Ile
                                 25
Xaa Cys Cys Pro Leu Xaa Leu Ile Gly Leu Lys Ala Xaa Lys Cys Ala
        35
                            40
Asp Tyr Val Val Thr Gly Thr Trp Ser Ala Lys Gly Ala Xaa Lys Thr
    50
                        55
                                            60
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<210> 1779 <211> 60 <212> PRT <213> Homo sapiens <220> <221> SITE

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<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids
Trp Leu Ser Ser Thr Ala Met Tyr Ser Ala Ala Gly Arg Asp Leu Gly
Met Glu Pro His Arg Ala Ala Gly Pro Leu Pro Ala Ala Asn Phe Arg
Pro Asp Val Phe Asn Gly Gly Asp Tyr Thr Gly Gln Leu Leu Glu Lys
                             40
Ile Leu Pro Ile Val Ala Ser Glu Tyr Ser Ile Xaa
     50
                        55
<210> 1780
<211> 60
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1780
Thr Leu Xaa Leu His Lys Ile Gln Lys Leu Arg Trp Ala Trp Cys Cys
Xaa Pro Ile Val Pro Leu Leu Val Gly Leu Arg Gln Glu Asp His Leu
             20
                                 25
Ser Pro Gly Gly Arg Gly Tyr Xaa Ala Pro Arg Val His Tyr Cvs Thr
```

35 40 45

Pro Ala Arg Ala Arg Arg Ala Arg Pro Cys Xaa Lys 50 55 60

<210> 1781

<211> 67 <212> PRT

<213> Homo sapiens

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<221> SITE <222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (34)

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<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (39)

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<221> SITE <222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1781
 Gly Cys Arg Val Asn Gln Ala Ala Val Xaa Trp His Glu Gln Val Xaa
                                      10
Trp Leu Ser Glu Xaa Arg Xaa Gly Glu Thr Val Tyr Tyr Arg Leu Leu
                                  25
 Pro Xaa Lys Asn Val Xaa Xaa Arg Xaa Ala Arg Gly Leu Val Phe Lys
         35
                              40
Glu Cys Arg Gln Ser Ala Ser Met Xaa Arg Val Leu Ala Val Tyr Gly
                          55
Val Lys Arg
 65
<210> 1782
<211> 152
<212> PRT
<213> Homo sapiens
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<222> (149)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (150)
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1782
Arg Pro Thr Arg Pro Leu Thr Ser Thr Xaa Ala Val Gly Lys Asn Lys
Arg Leu Thr Lys Gly Gly Lys Lys Gly Ala Lys Lys Lys Val Val Asp
Pro Phe Ser Lys Lys Asp Trp Tyr Asp Val Lys Ala Pro Ala Met Phe
        35
                            40
                                                45
Asn Ile Arg Asn Ile Gly Lys Thr Leu Val Thr Arg Thr Gln Gly Thr
Lys Ile Ala Ser Asp Gly Leu Lys Gly Arg Val Phe Glu Val Ser Leu
                                        75
Ala Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys Phe Lys Leu Ile
                85
                                    90
Thr Glu Asp Val Gln Gly Lys Asn Cys Leu Thr Asn Phe His Gly Met
           100
                               105
Asp Leu Thr Arg Asp Lys Met Cys Ser Met Val Lys Lys Trp Xaa Thr
                           120
Met Ile Glu Ala His Val Asp Val Lys Thr Thr Asp Gly Tyr Leu Leu
                       135
Arg Cys Ser Xaa Xaa Xaa Xaa Leu
145
                  150
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<210> 1783 <211> 127 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
<221> SITE
<222> (82)
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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1783

His Arg Val Arg Gln Arg Xaa Pro Thr Leu Ala Arg Ala Met Ala Ser 1 5 10 15

Val Ser Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp 20 25 30

Glu Val Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Val Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu 50 60

Ala Asn Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly 65 70 75 80

Pro Xaa Pro Ala Ala Gly Ala Ala Pro Ala Gly Gly Pro Ala Pro Ser \$85\$ 90 95

Thr Ala Ala Ara Pro Ala Glu Glu Lys Lys Val Glu Ala Lys Lys Glu 100 105 110

Glu Ser Glu Glu Ser Tyr Asp Asp Met Gly Phe Gly Leu Phe Asp 115 120 125

<210> 1784

<211> 101

<212> PRT

<213> Homo sapiens

<220>

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<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

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<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE <222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1784

Gly Ser Ala Ala Gly Ser Thr Ala Xaa ser Leu Leu ser Thr Gly Xaa 1 5 10 15

Pro Arg Pro Thr Arg Pro Asp Lys Ala Arg Arg Leu Gly Tyr Lys Ala 20 25 30

Lys Gln Gly Tyr Val Ile Tyr Arg Ile Arg Val Arg Arg Gly Gly Arg 35 40 45

Lys Arg Pro Val Pro Lys Gly Ala Thr Tyr Gly Lys Pro Val His His 50 55 60

Gly Val Xaa Xaa Leu Lys Phe Ala Arg Ser Leu Gln Ser Val Ala Glu 65 70 75 80

Glu Arg Ala Gly Arg His Cys Gly Ala Leu Arg Val Leu Asn Ser Tyr 85 90 95

Trp Val Gly Glu Asp 100

<210> 1785 <211> 123

<212> PRT

<213> Homo sapiens

<400> 1785

Ala Lys Met Gly Ala Tyr Lys Tyr Ile Gln Glu Leu Trp Arg Lys Lys 1 5 10 15

Gln Ser Asp Val Met Arg Phe Leu Leu Arg Val Arg Cys Trp Gln Tyr
20 25 30

Arg Gln Leu Ser Ala Leu His Arg Ala Pro Arg Pro Thr Arg Pro Asp \$35\$ \$40\$ \$45\$

Lys Ala Arg Arg Leu Gly Tyr Lys Ala Lys Gln Gly Tyr Val Ile Tyr 50 60

Arg Ile Arg Val Arg Arg Gly Gly Arg Lys Arg Pro Val Pro Lys Gly 65 70 75 80

```
Ala Ile Thr Ala Ser Leu Ser Ile Met Val Leu Thr Ala Lys Val Cys
                                      90
 Ser Lys Pro Ser Val Arg Cys Arg Gly Ala Ser Trp Thr Pro Leu Trp
 Gly Ser Glu Ser Pro Glu Phe Leu Leu Gly Trp
         115
                            120
<210> 1786
<211> 137
<212> PRT
<213> Homo sapiens
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<220> <221> SITE <222> (57) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1786 Ile Xaa Ile Lys Xaa Thr Xaa Thr Xaa Gly Xaa Lys Leu Xaa Leu His 10 15 Arg Gly Gly Gly Arg Ser Ser Thr Ser Gly Ser Pro Gly Ser Ala Gly Ile Arg His Glu Arg Xaa Lys Arg Asp Asp Glu Gly Thr Ser Ser Phe Gly Lys Arg Arg Asn Lys Thr His Xaa Leu Cys Arg Arg Cys Gly Ser 50 55 60 Lys Ala Tyr His Leu Gln Lys Ser Thr Cys Gly Lys Cys Gly Tyr Pro Ala Lys Arg Lys Arg Lys Tyr Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr Gly Thr Gly Arg Met Arg His Leu Lys Ile Val Tyr Arg 100 Arg Phe Arg His Gly Phe Arg Glu Gly Thr Thr Pro Lys Pro Lys Arg 115 120 Ala Ala Val Ala Ala Ser Ser Ser Ser 130 135 <210> 1787 <211> 128 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (7) <223> Xaa <400> 1787

<220> <221> SITE Leu Xaa Leu Thr Lys Gly Xaa Lys Ser Trp Gly Ser Thr Ala Val Thr $1 \ 5 \ 10 \ 15$

Thr Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg \$20\$ \$25\$ \$30

Gly Arg Gly Asp Met Ala Lys Arg Thr Lys Lys Val Gly Ile Val Gly 35 40 45

Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys Met Val Lys Lys 50 60

Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser Phe Cys Gly Lys 65 70 75 80

Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His Cys Gly Ser Cys 85 90 95

Met Lys Thr Val Ala Gly Gly Ala Trp Thr Tyr Asn Thr Thr Ser Ala 100 105 110

Val Thr Val Lys Ser Ala Ile Arg Arg Leu Lys Glu Leu Lys Asp Gln 115 120 125

<210> 1788

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1788

Arg Gly Asp Met Ala Lys Arg Thr Lys Lys Val Gly Ile Val Gly Lys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys Met Val Lys Lys Ile \$20\$ \$25\$ \$30\$

Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser Phe Cys Gly Lys Thr 35 40 45

Lys Met Lys Arg Arg Ala Val Gly Ile Trp His Cys Gly Ser Cys Met 50 60

Lys Thr Val Ala Gly Gly Ala Trp Thr Tyr Asn Thr Thr Ser Ala Val 65 70 75 80

Thr Val Lys Ser Ala Ile Arg Arg Leu Lys Glu Leu Lys Asp Gln

WO 00/55174 1640 PCT/US00/05988

85 90 95

<210> 1789 <211> 113

<212> PRT

<213> Homo sapiens

<220> <221> SITE

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<221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1789

Gln Ser Leu Gly Arg Gly Asp Met Ala Lys Arg Thr Lys Lys Val Gly

5 10 15

Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys Met 20 25 30

Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser Phe \$35\$

Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His Cys

```
Gly Ser Cys Met Lys Thr Val Xaa Gly Gly Xaa Trp Thr Tyr Asn Thr
 65
 Thr Ser Ala Val Thr Val Lys Val Arg His Gln Lys Xaa Glu Gly Val
                  85
                                      90
Glu Arg Pro Leu Asp Val Pro Xaa Xaa Phe Gly Thr Ser Leu Xaa Tyr
                                 105
 Asn
<210> 1790
<211> 24
<212> PRT
<213> Homo sapiens
<400> 1790
Ile Pro Cys Leu Lys Pro Lys Asn Phe Gly Ile Gly Gln Asp Ile Gln
                                     10
Pro Lys Arg Asp Ser Pro Ala Leu
             20
<210> 1791
<211> 70
<212> PRT
<213> Homo sapiens
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<222> (32)
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<223> Kaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<222> (49)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Arg Arg Cys Ala Leu Arg Ala Val Asp Phe Ala Glu Arg Asn Gly Tyr
                                     10
 Ile Lys Gly Ile Val Lys Asp Ile Ile His Asp Pro Gly Arg Gly Xaa
 Pro Leu Ala Lys Val Val Phe Arg Asp Pro Xaa Arg Leu Arg Ser Xaa
                             40
 Xaa Glu Leu Phe Ile Ala Ala Glu Gly Ile His Thr Gly Gln Phe Val
     50
 Tyr Cys Arg Lys Lys Ala
<210> 1792
<211> 110
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
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<220>
<221> SITE
<222> (10)
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<222> (12)
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<220>
<221> SITE
<222> (58)
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<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1792
Gly Arg Val Xaa Arg Pro Thr Arg Pro Xaa Glu Xaa Arg Gly Gly Gly
Gly Leu Gly Ala Phe Lys Ile Gln Leu His Xaa Xaa Ala Thr Gly Met
                                 25
Ala Glu Glu Gly Ile Ala Ala Gly Gly Val Met Asp Val Asn Thr Ala
         35
                             40
                                                 45
```

Leu Gln Glu Val Leu Lys Thr Ala Leu Xaa His Asp Gly Leu Ala Arg

50 55 60

Gly Ile Arg Glu Ala Ala Lys Ala Leu Asp Lys Arg Gln Ala His Leu 65 70 75 80

Cys Xaa Leu Ala Ser Asn Xaa Asp Glu Pro Met Tyr Xaa Lys Xaa Xaa Xaa 85 90 95

Glu Ala Leu Xaa Ala Glu His Gln Xaa Asn Leu Ile Lys Gly

<210> 1793

<211> 92 <212> PRT

<213> Homo sapiens

<220> <221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1793

Leu Val Pro Asn Ser Ala Arg Ala Ala Ile Met Gly Arg Met His Ala 1 15

Pro Gly Lys Gly Leu Ser Gln Ser Ala Leu Pro Tyr Arg Arg Ser Val

Pro Thr Trp Leu Lys Leu Thr Ser Asp Xaa Xaa Lys Glu Gln Ile Tyr 35 40 45

Lys Leu Ala Lys Lys Gly Leu Thr Pro Ser Gln Ile Gly Val Ile Leu 50 55 60

Arg Asp Ser His Gly Val Ala Gln Val Arg Phe Val Thr Gly Asn Lys 65 70 75 80

Ile Leu Arg Ile Leu Lys Ser Lys Gly Leu Ala Pro $85 \hspace{1cm} 90 \hspace{1cm}$

<210> 1794

<211> 105

<212> PRT

<213> Homo sapiens

<400> 1794

Ile Ala Ile Val Asn Asp Thr Val Thr Ile Arg Thr Arg Lys Phe Met 10

Thr Asn Arg Leu Leu Gln Arg Lys Gln Met Val Ile Asp Val Leu His

Pro Gly Lys Ala Thr Val Pro Lys Thr Glu Ile Arg Glu Lys Leu Ala 40

Lys Met Tyr Lys Thr Thr Pro Asp Val Ile Phe Val Phe Gly Phe Arg 55

Thr His Phe Gly Gly Gly Lys Thr Thr Gly Phe Gly Met Ile Tyr Asp 70

Ser Leu Asp Tyr Ala Lys Lys Asn Glu Pro Lys His Arg Leu Ala Arg 90

His Gly Leu Tyr Glu Lys Lys Lys Thr 100 105

<210> 1795 <211> 92

<212> PRT

<213> Homo sapiens

<400> 1795

Val Asp Pro Arg Val Arg Tyr Asp Thr Lys Gly Arg Phe Ala Val His 1.0

Arg Ile Thr Pro Glu Glu Ala Lys Tyr Lys Leu Cys Lys Val Arg Lys 25

Ile Phe Val Gly Thr Lys Gly Ile Pro His Leu Val Thr His Asp Ala 35

Arg Thr Ile Arg Tyr Pro Asp Pro Leu Ile Lys Val Asn Asp Thr Ile

Gln Ile Asp Leu Glu Thr Gly Lys Ile Thr Asp Phe Ile Lys Phe Asp 65 75

Thr Gly Asn Leu Cys Met Val Thr Gly Gly Ala Asn 85

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<210> 1796
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<212> PRT
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<400> 1796
Gly Ile Phe Arg Asp Asn Trp His Lys Arg Arg Lys Thr Gly Gly Lys
Arg Lys Pro Tyr His Lys Lys Arg Lys Tyr Glu Leu Gly Arg Pro Ala
                                 25
Ala Asn Thr Lys Ile Gly Pro Arg Arg Ile His Thr Val Arg Val Arg
         35
                             40
Gly Gly Asn Lys Lys Tyr Arg Ala Leu Arg Leu Asp Val Gly Asn Phe
Ser Trp Gly Ser Glu Cys Cys Thr Arg Lys Thr Arg Ile Ile Asp Val
                     7.0
Val Tyr Asn Ala Ser Asn Asn Glu Leu Xaa Arg Thr Lys Thr Leu Val
                 85
                                     90
                                                          95
Lys Asn Cys Ile Xaa Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr
            100
Xaa Val Pro Leu Cys Ala Ala Pro Gly Pro Gln Glu Gly Ser Gln Ala
                            120
                                                125
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Asp Ser 130

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<210> 1797
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 Pro Arg Ala Gly Gly Cys Gly Gly Ser Gly Arg Val Thr Ala Cys Leu
                                     10
                                                          15
Cys Ala Cys Ala Thr Leu Val Trp Pro Pro Arg Phe Gln Glu Val Leu
Leu Val Leu Ser Gly Leu Val His Ala Arg Gly Cys Thr Tyr Xaa Gln
                             40
Leu Trp Ser Arg Ser His Pro Phe Cys Cys Xaa Arg Gly Pro Leu Ala
     50
                                              60
Met Ala Gly Ile Leu Phe Glu Asp Ile Phe Asp Val Lys Asp Ile Xaa
Pro Glu Gly Lys Lys Phe Xaa Arg Val Ser Arg Xaa His Cys Glu Ser
Glu Xaa Xaa Arg Trp Xaa Xaa Thr Lys Xaa
            100
                                105
<210> 1798
<211> 140
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220> <221> SITE

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<222> (7)
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<222> (13)
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<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1798
Lys Xaa Xaa Glu Pro Xaa Xaa Arg Ile Glu Arg Ala Xaa Xaa Xaa
 1
                  5
                                     10
Leu Lys Lys Ser Gly Lys Leu Lys Val Pro Glu Trp Val Asp Thr Val
                                 25
Lys Leu Ala Lys His Lys Glu Leu Ala Pro Tyr Asp Glu Asn Trp Phe
Tyr Thr Arg Ala Ala Ser Thr Ala Arg His Leu Tyr Leu Arg Gly Gly
     50
                         55
Ala Gly Val Gly Ser Met Thr Lys Ile Tyr Gly Gly Arg Gln Arg Asn
65
                     70
Gly Val Met Pro Ser His Phe Ser Arg Gly Ser Lys Ser Val Ala Arg
Arg Val Leu Gln Ala Leu Glu Gly Leu Lys Met Val Glu Lys Asp Gln
           100
                                105
Asp Gly Gly Arg Lys Leu Thr Pro Gln Gly Gln Arg Asp Leu Asp Arg
       115
Ile Ala Gly Gln Val Ala Ala Ser Asn Lys Lys His
    130
                        135
```

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<210> 1799
<211> 126
<212> PRT
<213> Homo sapiens
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1799
Val Asp Pro Arg Val Arg Lys Thr Val Xaa Glu Leu Asp Lys Gly Met
Gln Glu Arg Thr Gly Ala Ala Thr Ala Arg Arg Glu Ser Leu Pro Gln
                                 25
Ala Asn Asn Pro Glu Gln Leu Cys Lys Gln Arg Cys Ile Asn Glu Ala
                             40
Ser Trp Thr Met Lys Leu Val Leu Ser Cys Val Pro Glu Pro Thr Val
     50
                         55
Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly Leu Val Leu Ala Leu
Leu Ser Ser Ser Ser Ala Arg Glu Leu Arg Gly Ala Cys Leu Pro Asn
                                    90
Gln Cys Ala Val Pro Ala Lys Asp Arg Val Glu Leu Arg Leu Thr Pro
            100
Met Phe Thr Pro Lys Asp Cys Lys Asn Arg Gly Cys Cys Xaa
        115
                            120
```

<210> 1800 <211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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 <220>
 <221> SITE
 <222> (126)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (133)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1800
 Gly Tyr Leu His Ser Leu Asn Ile Val Tyr Arg Asp Leu Lys Pro Glu
                                     10
 Asn Ile Leu Leu Asp Ser Gln Gly His Ile Val Leu Thr Asp Phe Gly
             20
 Leu Cys Lys Glu Asn Ile Glu His Asn Ser Thr Thr Ser Thr Phe Cys
         35
                            40
Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu His Lys Gln Pro Tyr
Asp Arg Thr Val Asp Trp Trp Cys Leu Gly Ala Phe Leu Tyr Glu Met
                     70
                                        75
Leu Tyr Gly Leu Pro Pro Phe Tyr Ser Arg Asn Thr Ala Glu Met Tyr
Asp Asn Ile Leu Asn Lys Pro Leu Gln Leu Lys Pro Asn Ile Thr Asn
            100
                                105
                                                    110
Ser Ala Arg His Leu Leu Glu Gly Leu Leu Xaa Lys Asp Xaa Thr Lys
                           120
Arg Leu Gly Gly Xaa Gly Asp Phe Met Glu Ile Lys
    130
                       135
<210> 1801
<211> 92
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
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<222> (77)

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<223> Xaa equals any of the naturally occurring L-amino acids
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 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Thr Met Pro Gln Tyr Gln Thr Trp Glu Glu Phe Ser Arg Ala Ala
                  5
                                     10
Glu Lys Leu Tyr Leu Ala Asp Pro Met Lys Ala Arg Val Val Leu Lys
Tyr Arg His Ser Asp Gly Asn Leu Cys Val Lys Val Thr Asp Asp Leu
                             40
Val Cys Leu Val Tyr Lys Thr Asp Gln Ala Gln Asp Val Lys Lys Ile
     50
                         55
                                             60
Glu Lys Phe His Ser Gln Leu Met Arg Leu Ile Val Xaa Gln Gly Ala
 65
                                         75
Xaa Asn Leu Pro Trp Glu Leu Ser Glu Trp Phe Xaa
                 85
<210> 1802
<211> 176
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (19)
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (96)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (134)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (140)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (166)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1802
Arg Gly Ala Xaa Arg Ser Arg Thr Ser Gly Ser Pro Gly Xaa Ala Gly
 1
                                     10
                                                         15
```

Ile Arg Xaa Arg Xaa Val Ser Gln Lys Thr Val Ile Ile Lys Glu Glu 20 25 30

Glu Glu Asp Thr Ala Glu Lys Pro Gly Lys Glu Glu Asp Val Val Thr 35 40 45

Pro Lys Pro Xaa Lys Arg Lys Arg Asp Gln Ala Glu Glu Glu Pro Asn 50 55 60

Arg Ile Pro Ser Arg Xaa Leu Arg Arg Thr Lys Leu Asn Gln Glu Ser 65 70 75 80

Thr Ala Pro Lys Val Leu Phe Thr Gly Val Val Asp Ala Arg Gly Xaa 85 90 95

Arg Ala Val Leu Ala Trp Gly Glu Ile Trp Leu Val His Gly Gln Ser 100 105 110

Phe Pro Xaa Val His Gly Ser His Pro Pro Asp Ile Gln Phe Leu Cys 115 120 125

Gly Pro Gly Ala Gly Xaa Ser Pro Phe Cys Ser Xaa Asp Gly Trp His 130 $$135\$

His Ser Arg Gln Ala Gly Phe Leu Leu Thr Pro Asp Glu Tyr Val Val 145 150 155

Asn Asp Xaa Ala Pro Xaa Glu Glu Phe Gly Phe Thr Phe Lys Thr His $165 \hspace{1cm} 170 \hspace{1cm} 175$

<210> 1803

<211> 39

<212> PRT

<213> Homo sapiens

<400> 1803

Gly Ser Leu Ala Val Thr Lys Asn Asp Gly His Tyr Arg Gly Asp Pro $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Asn Trp Phe Met Lys Tyr Val Ala Pro Arg Glu Leu Gly Ser Pro His 20 25 30

Gly Val Gly Gly Leu Phe

```
<210> 1804
 <211> 42
 <212> PRT
 <213> Homo sapiens
 <400> 1804
 Gly Ser Leu Leu Ser Pro Asp Met Ala Asn Lys Gly Pro Ser Tyr Gly
                                      10
Met Ser Arg Glu Val Gln Ser Lys Ile Glu Lys Lys Tyr Asp Glu Glu
                                 25
Leu Gly Gly Ala Ala Gly Gly Val Gly Pro
         35
<210> 1805
<211> 165
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (114)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (117)
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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (135)
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<223> Xaa equals any of the naturally occurring L-amino acids
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 <221> SITE
<222> (137)
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (142)
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (160)
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<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1805
 Phe Gly Thr Arg Leu Asp Gln Ile Arg Gln Arg Glu Ser Asp Ile Thr
 Lys Glu Arg Ile Gln Lys Ile Leu Ala Thr Gly Ala Asn Val Ile Leu
                                 25
 Thr Thr Gly Gly Ile Asp Asp Met Cys Leu Lys Tyr Phe Val Glu Ala
         35
                             40
Gly Ala Met Ala Val Arg Arg Val Leu Lys Arg Asp Leu Lys Arg Ile
Ala Lys Ala Ser Gly Ala Thr Ile Leu Ser Thr Leu Ala Asn Leu Glu
Gly Glu Glu Thr Phe Glu Ala Ala Met Leu Gly Gln Ala Glu Glu Val
                 85
Val Glm Glu Arg Phe Cys Asp Asp Glu Leu Ile Leu Ile Xaa Ile Pro
            100
                                105
Arg Xaa Asp Gly Xaa Ile Gly Phe Phe Arg Gly Ala Lys Phe Ser Arg
                            120
Xaa Xaa Gly Gly Leu Xaa Lys Xaa Leu Phe Gly Xaa Xaa Phe Gly
Xaa Ile Gly Xaa Pro Gly Val Leu Lys Xaa Xaa Xaa Pro Lys Ile Xaa
                   150
                                       155
Pro Gly Xaa Asp Leu
                165
<210> 1806
<211> 91
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1806
Ile Ala Gly Lys Leu Gln Asp Gly Leu Leu Xaa Ile Thr Xaa Xaa Ser
                                     10
Phe Xaa Ala Pro Trp Asn Ser Leu Ser Leu Ala Xaa Ala Gly Ala Ser
                                 2.5
Pro Arg Pro Thr Leu Leu Ala Val Arg Asn Ala Gln Cys Phe Pro Val
         35
                             40
                                                 45
Tyr Pro Ser Pro Val Lys Leu Gln Ser Gly Thr His Cys Leu Trp Thr
     50
Asp Gln Leu Leu Gln Gly Ser Glu Lys Gly Phe Gln Phe Pro Xaa Thr
                    70
                                         75
Leu Xaa Gly Leu Thr Ser Gly Ser Xaa Gly Leu
                 85
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<210> 1807

```
<211> 123
 <212> PRT
 <213> Homo sapiens
<220>
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 <222> (102)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1807
 Ala Arg Pro Ser Arg Arg Arg Arg Arg Arg Arg Pro Leu Gly Leu
                                    10
Ala Met Ser Ser Pro Val Lys Arg Gln Arg Met Glu Ser Ala Leu
Asp Gln Leu Lys Gln Phe Thr Thr Val Val Ala Asp Thr Gly Asp Phe
                             40
His Ala Ile Asp Glu Tyr Lys Pro Gln Asp Ala Thr Thr Asn Pro Ser
Leu Ile Leu Ala Ala Ala Gln Met Pro Ala Tyr Gln Glu Leu Val Glu
 65
                     70
                                         75
Glu Ala Ile Ala Tyr Gly Arg Lys Leu Gly Gly Ser Gln Glu Asp Gln
Ile Lys Asn Ala Ile Xaa Lys Leu Phe Val Leu Phe Gly Ala Glu Ile
                                105
Leu Lys Lys Ile Pro Gly Arg Val Ser Thr Glu
        115
                           120
<210> 1808
<211> 131
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1808
Arg Leu Arg Gly Gly Cys Ser Val Leu Ser Val Gln Ala Ala Ala Gly
                  5
                                     10
                                                         15
Leu Ser Gln Arg Arg Pro Pro Phe Thr Leu Arg Ala Arg Ser Pro Ala
                                25
Val Leu Pro Phe Arg Cys Pro Pro Cys His His Asp Gly Thr Gly His
                            40
Leu Leu Arg Gln Arg Leu Leu Gly Arg Xaa Ile Ala Ala Ala Ile Ser
     50
Lys Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Gln Val
                    70
                                        75
Gln His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile
Val Asp Cys Ile Val Arg Ile Pro Arg Ser Arg Arg Val Ser Phe Trp
                               105
Arg Xaa Thr Leu Gln Arg His Arg Tyr Phe Pro Xaa Lys Pro Gln Phe
        115
Ala Ser Arq
    130
<210> 1809
<211> 93
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1809
Asp Trp Ser Lys Val Val Leu Ala Tyr Glu Pro Val Trp Ala Ile Gly
                  5
                                    10
```

```
Thr Gly Lys Thr Ala Thr Pro Gln Gln Ala Gln Glu Val His Glu Lys
              20
                                  25
Leu Arg Gly Trp Leu Lys Ser Asn Val Ser Asp Ala Val Ala Xaa Ser
                            40
Thr Arg Ile Ile Tyr Gly Gly Ser Val Thr Gly Ala Thr Cys Lys Glu
      50
                         55
Leu Ala Ser Gln Pro Asp Val Asp Gly Phe Leu Val Gly Gly Ala Ser
Leu Lys Pro Glu Phe Val Asp Ile Ile Asn Ala Lys Gln
                  85
<210> 1810
<211> 150
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
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<220>
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<220>
<221> SITE
<222> (119)
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<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (138)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
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 <222> (147)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1810
 Ile Arg His Glu Gly Arg Gly Ile Xaa Ile Glu Arg Val Val Ser Ser
                                      10
 Glu Gly Gly Arg Pro Ser Val Asp Leu Ser Phe Gln Pro Ser Lys Pro
 Leu Ser Lys Ser Ser Ser Pro Glu Leu Gln Thr Leu Gln Asp Ile
                             40
 Leu Gly Asp Pro Gly Asp Lys Ala Asp Val Gly Arg Xaa Ser Pro Xaa
                         55
                                             60
 Val Lys Ala Arg Ser Gln Ser Gly Xaa Leu Asp Gly Glu Ser Xaa Ala
 65
 Trp Ser Val Ser Gly Glu Asp Ser Xaa Xaa Gln Pro Glu Gly Pro Leu
Thr Ser Arg Xaa Pro Arg Phe Ala Gln Val Xaa Ser Gly Pro Val Gly
             100
                                105
Tyr Asn Ile Xaa Xaa Xaa Xaa Pro Ser Arg Xaa Gly Lys Xaa Leu Glu
        115
                            120
                                                 125
Arg Asp Ala Leu Arg Ala Glu His Ser Xaa Ile Gln Arg Ser Ser Arg
                       135
Ile Thr Xaa Phe Val Ser
145
<210> 1811
<211> 189
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
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<220>
<221> SITE
<222> (162)
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<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (170) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (178) <223> Xaa equals any of the naturally occurring L-amino acids Gly Arg Xaa Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro 10 Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe 20 Gly Thr Ser Glu Asp Glu Ile Asn Arg Arg Thr Ala Ala Glu Asn Glu 40 Phe Val Val Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Ser Lys Val 50 Glu Leu Glu Ala Lys Val Asp Ala Leu Asn Asp Glu Ile Asn Phe Leu Arg Thr Leu Asn Glu Thr Glu Leu Thr Glu Leu Gln Ser Gln Ile Ser Asp Thr Ser Val Val Leu Ser Met Asp Asn Ser Arg Ser Leu Asp Leu 100 105 110 Asp Gly Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Glu Met Ala Lys 115 Cys Ser Arg Ala Glu Ala Glu Ala Trp Tyr Gln Thr Lys Phe Glu Thr 135 Leu Gln Ala Gln Ala Gly Lys His Gly Asp Asp Leu Arg Asn Thr Arg 145 150 Asn Xaa Ile Ser Glu Met Asn Arg Ala Xaa Gln Arg Leu Gln Ala Glu 165 170 175 Ile Xaa Asn Ile Lys Asn Gln Arg Ala Lys Leu Glu Ala

185

180

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<210> 1812
<211> 42
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1812
Leu Leu Ala Ser Leu Ala Asn Leu Ala Leu Pro Xaa Xaa Ile Asn Leu
Leu Gly Glu Leu Ser Val Ala Ser Asn Xaa Val Leu Leu Ile Lys Tyr
             20
                                 25
His Ser Pro Thr Tyr Arg Asn Ser Thr Tyr
         35
<210> 1813
<211> 121
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (106)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (109)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (116)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (121)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1813
Trp Pro Pro Val Leu Ala Phe Leu Gly Cys Val Trp Ser Leu Gly Pro
Cys Leu Trp Gly Lys Ser Asn Arg Thr Leu Ala Leu Pro Lys Met Lys
             20
                                 25
                                                     30
Gly Glu Glu Met Gly Leu Leu Phe Leu Ser Pro Glu Trp Glu Arg Ser
                             40
Ser Gly Gly Trp Ser Phe Ser Thr Glu Glu Gly Ser Leu Lys Ala Leu
Leu Thr Ser Cys Cys Thr Phe Cys Ile Ser Leu His Ala His Cys Leu
 65
                     70
Phe Leu Phe Leu Ala Leu Ala Pro Val Pro Val Pro Ala Pro Ala Asn
                 85
                                     90
Ala Lys Met Gln Met His Xaa Leu Ala Xaa Arg Val Xaa Ala Gly Leu
                                105
                                                    110
Ser Cys Glu Xaa Gly Gly Trp Ala Xaa
        115
<210> 1814
<211> 28
<212> PRT
<213> Homo sapiens
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<222> (25)
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<400> 1814
Arg Glu Arg Glu
                                     10
Xaa Xaa Pro Xaa Ser Ala Pro His Xaa Ser Ser Pro
             20
                                  25
<210> 1815
<211> 79
<212> PRT
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Ile Arg Xaa Ser Gly Asn Ala Asn Xaa Glu Asn Gly Glu Gln Glu Ala
                  5
                                     10
                                                         15
Asp Asn Glu Val Asp Glu Xaa Glu Glu Glu Gly Gly Glu Glu Glu Glu
```

20 25 30

Glu Glu Glu Glu Gly Asp Gly Glu Glu Glu Asp Gly Asp Glu Asp Glu Asp Glu 35 \$40\$

Glu Ala Glu Xaa Ser Tyr Gly Pro Ser Gly Gln Leu Lys Met Met Arg 50 55 60

Met Thr Met Ser Ile Pro Arg Ser Arg Arg Pro Thr Arg Met Thr 65 70 75

<210> 1816

<211> 21 <212> PRT

<213> Homo sapiens

<400> 1816

Lys Leu Lys Pro Gly Ala Ile Asp Ile Val Pro Gln Gly Lys Met Lys 1 5 10 15

Asn Tyr Asn Gln Ala 20

<210> 1817 <211> 76

<211> 76 <212> PRT

<213> Homo sapiens

<400> 1817

Gly Lys Arg Gly Glu Ala Phe Pro Arg Ser Ser Gln Arg Trp Arg Phe 1 5 10 15

Gly Arg Gly Phe Gly Gly Cys Ser Arg Phe Ala Gly Thr Leu Val Ile $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ser Leu Ala Pro Leu Leu Pro Ala His Ser Pro Gly Leu Ala Gln Tyr 35 40 45

Ile Gly Thr Cys Gly Phe Tyr Phe Val Phe Asp Val Pro Asp Arg Asn 50 55 60

Arg Ala Arg Gly Thr Ala Lys Thr Thr Val Gly Ser 65 70 75

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His Xaa Ile Xaa Xaa Tyr Xaa Xaa Pro Xaa Pro Lys Arg Xaa Xaa Asn
Thr Ala Cys Thr Ser Gln Arg Lys Ile Gln Asn Thr Thr Gln Xaa Ser
                                 25
Xaa Thr Glu Glu Xaa Phe Pro Pro Thr Xaa Thr Pro Gly Leu His Gln
         35
                             40
                                                 45
Pro Asn Xaa Thr Xaa Val Gly Phe Gly Phe Asp Ser Gln Xaa Val Leu
```

55

60

50

```
Cys Trp Leu Gln Arg Ile Asp Xaa Leu Asp Gly Xaa
 65
                     7.0
                                         75
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 <211> 44
 <212> PRT
 <213> Homo sapiens
<400> 1819
 Arg Met Phe Leu Leu Pro Lys Asn Val Lys Pro Thr Met Glu Asp Trp
                                     10
Gly Arg Gly Gly Met Lys Tyr Lys Ile Met Ile Ile Tyr Thr Glu Leu
Gly Phe Phe Met Phe Cys Lys Lys Val Phe Ile Ser
         35
                            40
<210> 1820
<211> 36
<212> PRT
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1820
Xaa Ser Gly Ile Gly Arg Gly Ala Leu Arg Leu Lys Ser Phe Thr Ser
                  5
                                     10
                                                         15
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Lys Lys Xaa Xaa
       35
<210> 1821
<211> 32
<212> PRT
<213> Homo sapiens
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Xaa Asn Thr Leu Xaa Gly Val Lys Met Lys Ile Xaa Thr Gln Asp Met
Asn Ile Phe Ser Cys Asn Leu Thr Ile Lys Ala Phe Ser His Thr Xaa
           20
                             25
                                               30
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<210> 1822 <211> 39 <212> PRT <213> Homo sapiens

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<400> 1822
Gly Kaa Gly Kaa Asn Pro Ala Ser Thr Lys Asn Thr Lys Lys Lys
                5
                                 10
20
                              25
Lys Lys Xaa Lys Xaa Xaa Xaa
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<210> 1823
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<212> PRT
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Xaa Asn Xaa Ser Ile Thr His Cys Thr His Gln Gly Lys Pro Gly Tyr
 1
                  5
                                     10
Ala Xaa Gln Val Thr Gly Xaa Gly Asn Ser Arg Val Asp Pro Arg Val
            20
Arg Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Ser Cys His
Asp Leu Tyr Leu Met Val Phe Ile Ser Arg Val His Leu Arg Glu Ala
Thr Leu Ser Ser Arg Ala Gln Met Glu Arg Arg Phe Cys Ala Val Gly
65
                     70
Ser Kaa Leu Pro Arg Ser Gly Val Arg Glu Glu Asn Tyr Pro Ala Gly
                85
Phe Asn Leu Phe His Pro Val Cys Ser Pro Gly Val Ala Ser Ala Leu
           100
                               105
                                                    110
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Arg Thr Ile Arg Phe Thr 115

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<211> 95
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Asp Gln Gly Cys Ser Val Arg Ala Pro Pro Arg His Asp Phe Leu Gln
Leu Ser Pro Val Val Gly His Val Val Leu Arg Arg Pro Gly Arg Arg
             20
                                 25
                                                     30
Leu Arg Gly Val Leu Gly Arg Gly Ser Pro Phe Ala Arg Pro Ala Phe
        35
                             40
                                                 45
Thr Gly Ala Pro Ala Ala Ala Tyr Pro Xaa Pro Pro Pro Ala Leu
Cys Pro Arg Pro Pro Arg Gly Pro Thr Xaa Val Xaa Lys Xaa Gly Val
65
                    70
                                        75
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Leu Asn Arg Xaa Xaa Thr Gly Cys Trp Ala Gly Asn Glu Glu Ala
                 85
                                     90
<210> 1825
<211> 17
<212> PRT
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<400> 1825
Xaa Tyr Ser Glu Ser Xaa Tyr Asn Ser Leu Ala Val Val Leu Gln Pro
                 5
                                    10
                                                         15
Arg
<210> 1826
<211> 69
<212> PRT
<213> Homo sapiens
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 <400> 1826
Thr Cys Arg Ala Leu Leu Arg Arg Xaa Ala Val Phe Gln Pro Ser Pro
Asn Ala Phe Phe Arg Cys Val Ser Glu Asp Leu Gly Phe Ala Val Leu
              20
                                  25
                                                      30
Xaa Thr Gln Leu Met Leu Xaa Xaa Leu Arg Phe Thr Gly Phe Ile Thr
                             40
                                                  45
Val Gly Ile Thr Pro Lys Ala Ser Pro Leu His Val Thr Glu His Val
                         55
Leu Asn Gln Arg Ser
 65
<210> 1827
<211> 167
<212> PRT
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<223> Xaa equals any of the naturally occurring L-amino acids

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Gly Gly Gly Lys Lys Arg Gly Xaa Leu Gly Gly Pro Phe Lys Gly Pro 130 140

Pro Xaa Xaa Arg Phe Pro Phe Leu Lys Ile Gly Lys Asn Pro Xaa Gly 145 150 155 160

Val Pro Ser Ser Pro Pro Phe 165

<210> 1828

<211> 23

<212> PRT

<213> Homo sapiens

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Pro Tyr Ser Glu Ser Tyr Tyr Asn Ser Leu Ala Val Val Leu Gln Arg
                                     10
Arg Xaa Val Xaa Asn Xaa Xaa
             20
<210> 1829
<211> 35
<212> PRT
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<400> 1829
Xaa Arg Xaa Lys His Met Xaa Phe Xaa Phe Xaa Leu Thr Leu Xaa Leu
  1
                  5
                                     10
Pro Thr Ser Xaa Pro Glu Gln His Xaa Ser Cys Phe Asp Thr His Leu
             20
                                 25
                                                      30
His Leu Tyr
         35
<210> 1830
<211> 74
<212> PRT
<213> Homo sapiens
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<400> 1830
Pro Arg Ser Pro Arg Val Leu His His Val Ser Val Leu Trp Gly Gly
                                     10
                                                          15
Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro Arg His Arg Glu Arg Leu
Asp Phe Leu Ser Leu Cys Ala Glu Xaa Leu Arg Trp Arg Pro Leu Ser
                             40
Leu Thr Gln Gln Leu Lys His Thr Ile Ser Gly Ser Xaa Trp Leu Pro
     50
                         55
His Pro Leu Xaa Cys Pro Leu Xaa Ser Xaa
 65
                     70
<210> 1831
<211> 43
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<213> Homo sapiens
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